Ranger Rick's nature magazine

November 1975

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Cover Credits:
Front—Gray Tree Frog by Robert L. Dunne
Back—Short-horned Grasshopper by Lois Cox

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RANGER RICK'S PLEDGE

I give my pledge as a member of Ranger Rick's Nature Club

To use my eyes to see the beauty of all outdoors.

To train my mind to learn the importance of nature.

To use my hands to help protect our soil, water, woods and wildlife.

And, by my good example, to show others how to respect, properly use and enjoy our natural resources.

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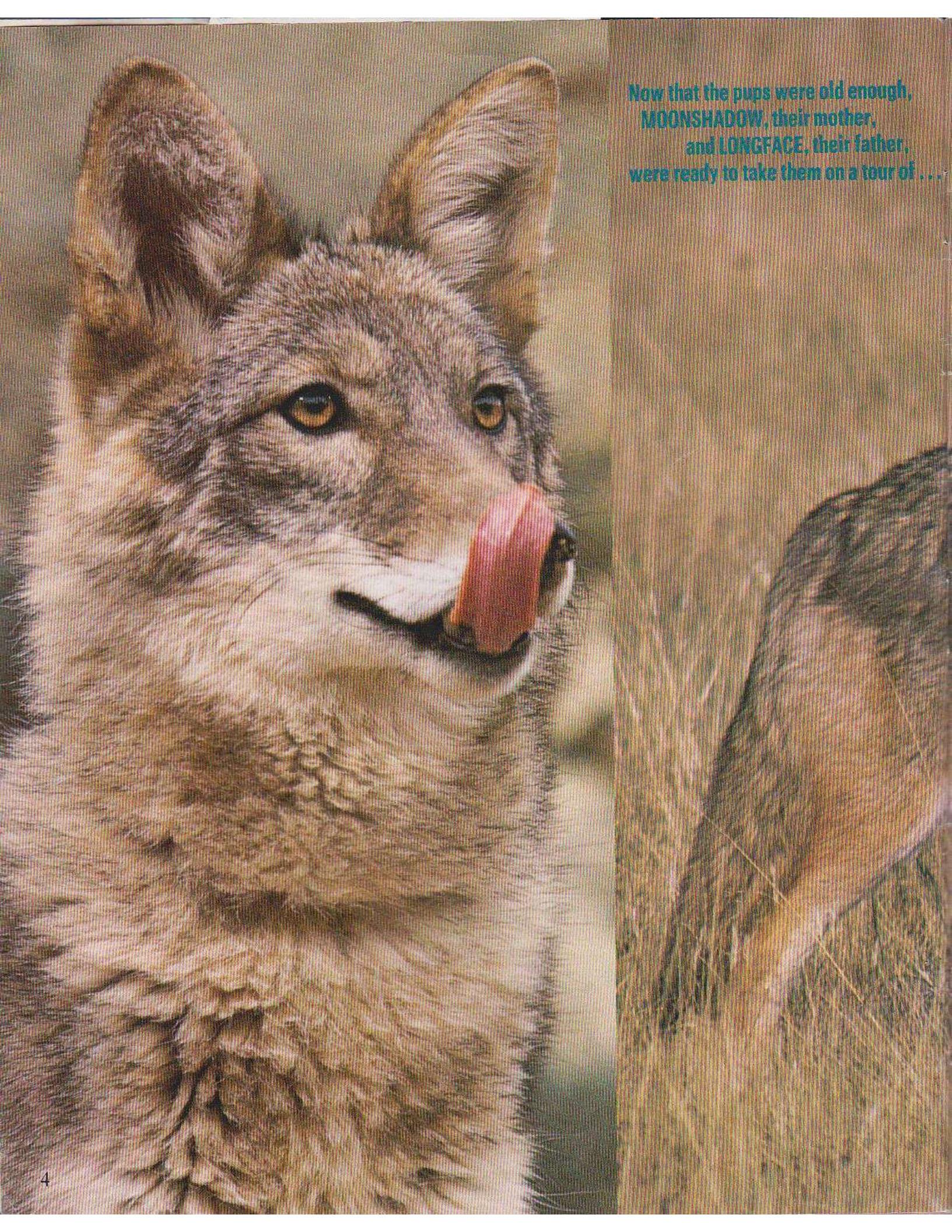
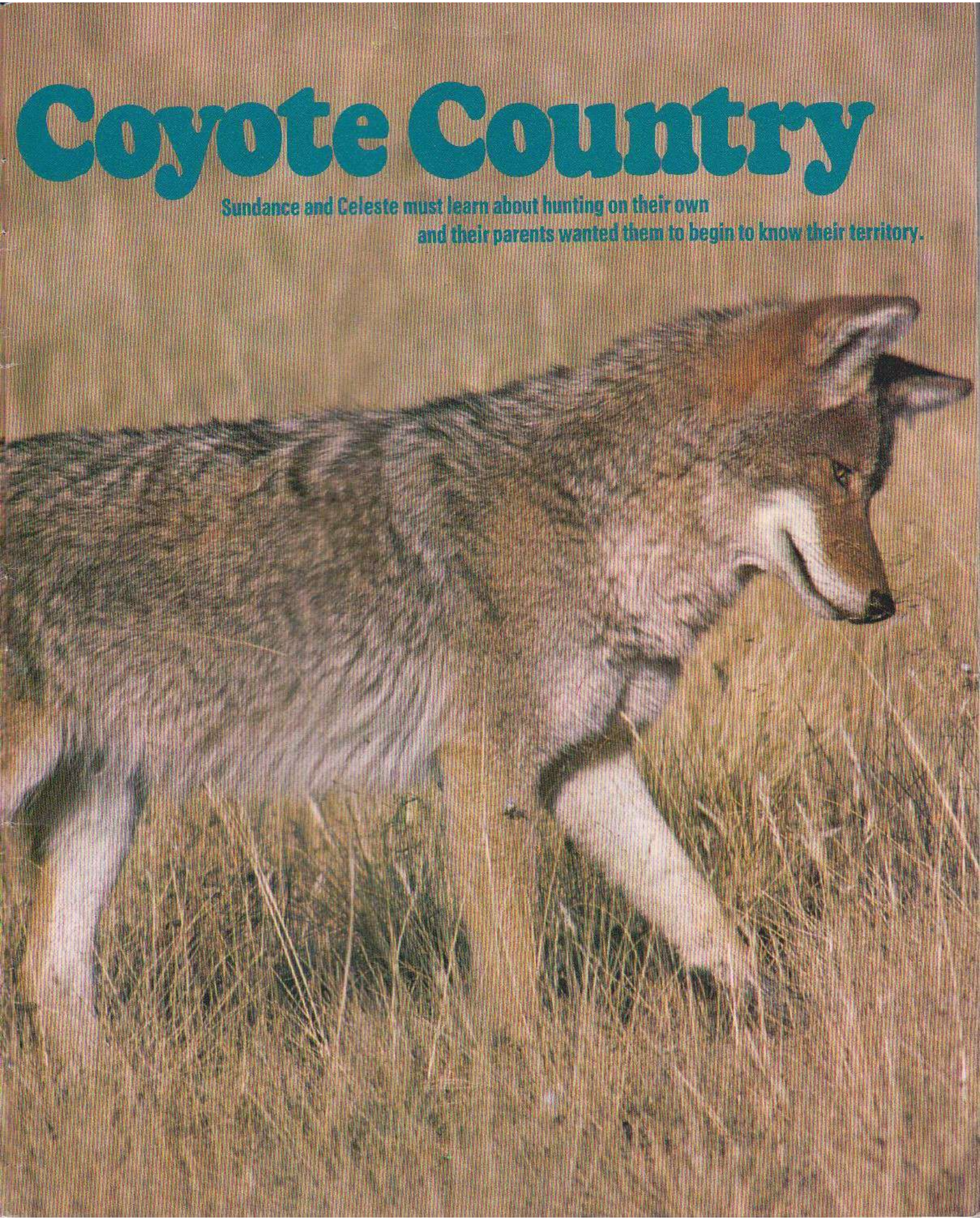
When the coyotes
CELESTE and SUNDANCE
were very young,
they often rested at
the door of their den.
If danger threatened
they could scamper
to safety...



Now that the pups were old enough,
MOONSHADOW, their mother,
and LONGFACE, their father,
were ready to take them on a tour of . . .

Coyote Country

Sundance and Celeste must learn about hunting on their own
and their parents wanted them to begin to know their territory.



by Dr. Michael Fox

EARLY ONE MORNING as the parents and youngsters trotted along, pinyon jays chattered and screeched at them. Their calls warned other animals that something dangerous was coming close.

A small golden-brown kit fox ▼ shot out from behind a rock right in front of Sundance. For a moment the fox stood there, staring. Its big ears were sticking up and its bushy tail arched over its back. Sundance decided to chase the little fox, but with one whisk of its long fluffy tail, the fox zigzagged away and disappeared like magic down a hole. This was Sundance's first meeting with one of his very distant cousins.

A little farther on, the cubs and their parents came to a narrow valley. They stopped to drink from a spring and then settled down to rest in the shade of a juniper bush. The cubs copied their parents and began to scrape up the earth to make cool "scoop holes" in which to lie. A jay suddenly began chattering and screaming at them. The coyotes would have little rest there. They got up and set off again across the valley.

Some time later the coyote family was making its way down a narrow ravine. The cubs' long legs did not have the same tireless spring that their parents' had. Every now and then Sundance or Celeste would stumble or slip. Or they would stop to look at

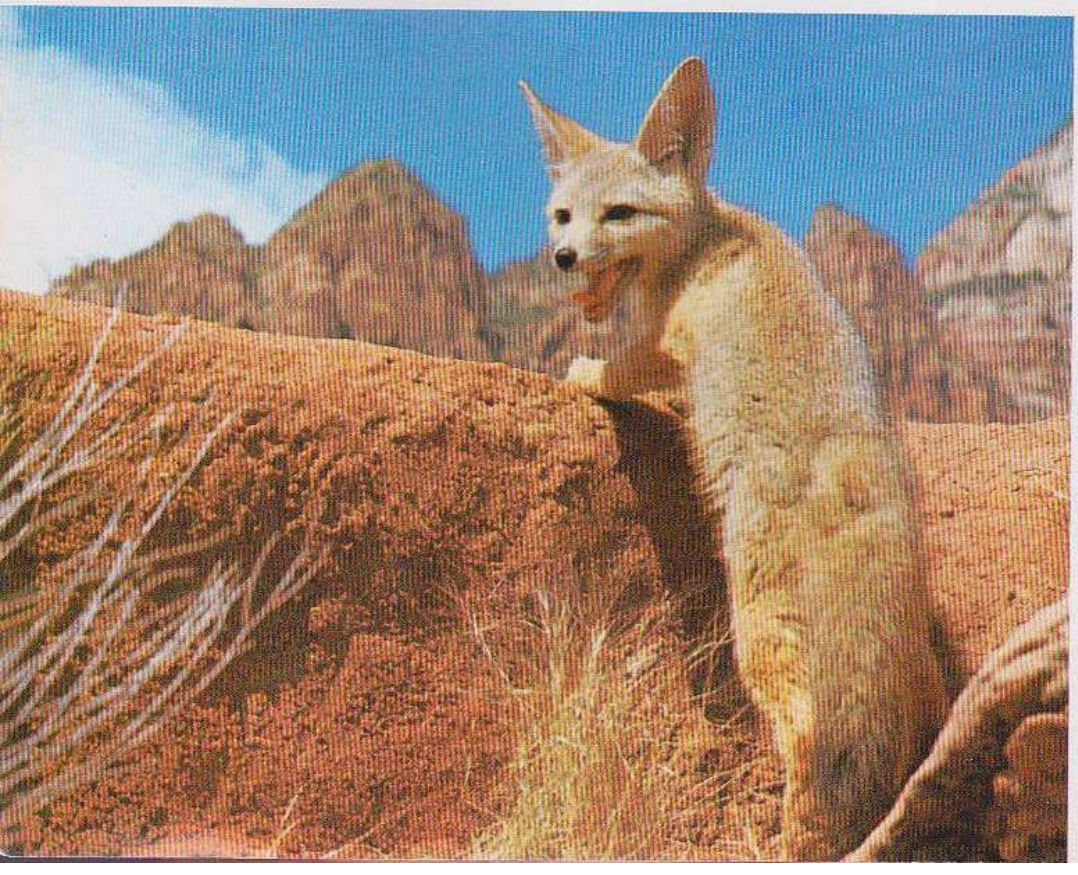
something and then race anxiously to catch up to their parents.

Suddenly Sundance sniffed a strange smell. It was very strong. He cautiously jumped onto a rock to look around. There, right beneath him, were the remains of a skunk.

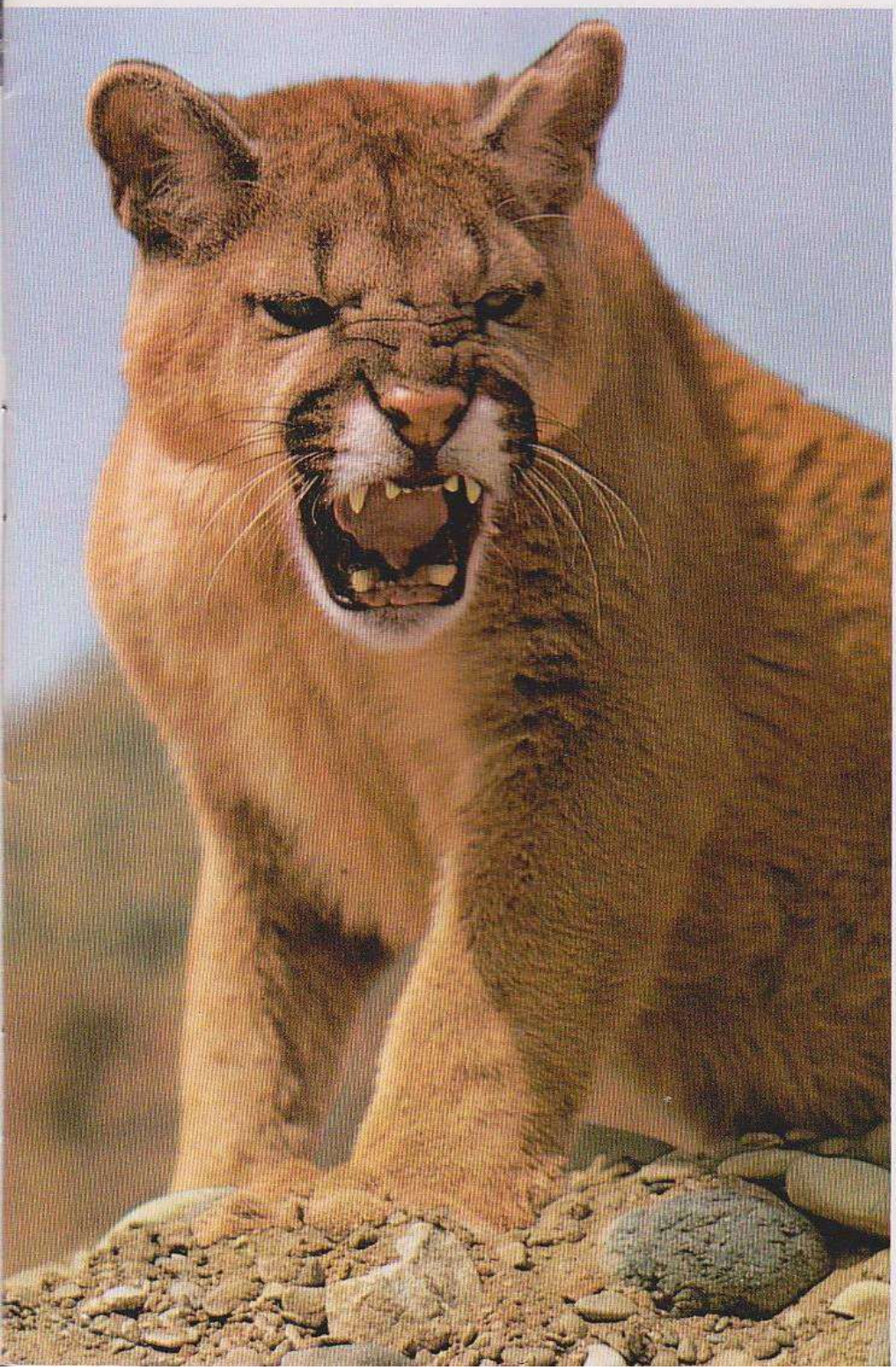
Moonshadow, Longface and Celeste joined Sundance. They too sniffed at the skunk, but did not touch it.

After nosing around the skunk some more, Longface rolled in the remains with an expression of pleasure on his face. Coyotes, like dogs and wolves, love to roll in all kinds of smelly things.

As Longface made a last, eager diving roll on top of the dead animal, he kicked over a small rock. A golden scorpion ▲ was under the rock. She had a brood of young ones and was alarmed when her safe refuge was gone. She quickly arched her tail over her back. On the end of it was her stinger, and she was ready to strike. She



rushed at Longface, who was only inches away. He was completely unaware of what was happening. Moonshadow, whose quick eyes missed nothing, reached the scorpion in one leap. With a lightning, karate-like stab of her paw, she crushed the scorpion. But her speed was not quick enough to avoid the scorpion's strike, and Moonshadow was stung on the paw. Though some scorpions are deadly, luckily this scorpion was not a very poisonous kind. Moonshadow ate the scorpion, but not before the cubs had sniffed it cautiously.



The scorpion's sting did not bother Moonshadow very much and the family moved several miles closer to home by late afternoon.

Suddenly the keen noses of the coyotes picked up a new smell on the chilly breeze. It made them quicken their pace and turn toward a steep hill. The smell led them to the half-eaten carcass of a mule deer. The deer had wandered into the hunting range of one of the few remaining cougars ◄ in this area. The cougar had partly covered the carcass with earth and brush to hide it from other animals until he came back to finish the feast.

Sundance and the others could smell cougar tracks around the kill, as well as the strong scent of urine the cougar had used to mark a nearby bush. The cubs had never met a cougar, but something in the smell made them very cautious.

Hardly had the coyotes begun feasting on the carcass when they heard a great angry roar coming from an outcrop of rock above them. A moment later a rippling golden body rushed at the coyotes.

Please turn the page

The air was filled with roars and yelps. The cougar's paws missed their mark, and the nimble coyotes scampered away quickly. They could run much faster than the cougar, so it was easy for the speedy coyotes to outdistance him. The cougar chased Celeste for several seconds, then decided it was hopeless to try to catch her.

As they neared home, the cubs watched Moonshadow and Longface working together to catch ground squirrels. These would provide a good meal for the hungry family. But ground squirrels can be difficult to catch. If you are uphill, they run down. If you are at the bottom, they shoot uphill like rockets. But Longface and Moonshadow knew how to trick them. Longface loped noisily along the bottom of the slope, alarming the ground squirrels, who instinctively ran uphill. At the top of the ridge, almost hidden from view, Moonshadow was waiting. She caught the squirrels quickly.

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AFTER THEIR MEAL, the family rested and played and then moved on. They reached home as the sun was dipping low over the mountains. Sundance came into camp carrying an empty tortoise shell he had found. Longface was gently licking Moonshadow. Sundance dropped the shell in front of his father, but Longface did not want to play. They were all tired. It had been a long journey and the cubs had learned much. Night was coming and Celeste and Sundance curled up together to sleep. Tomorrow was another day. *The End*

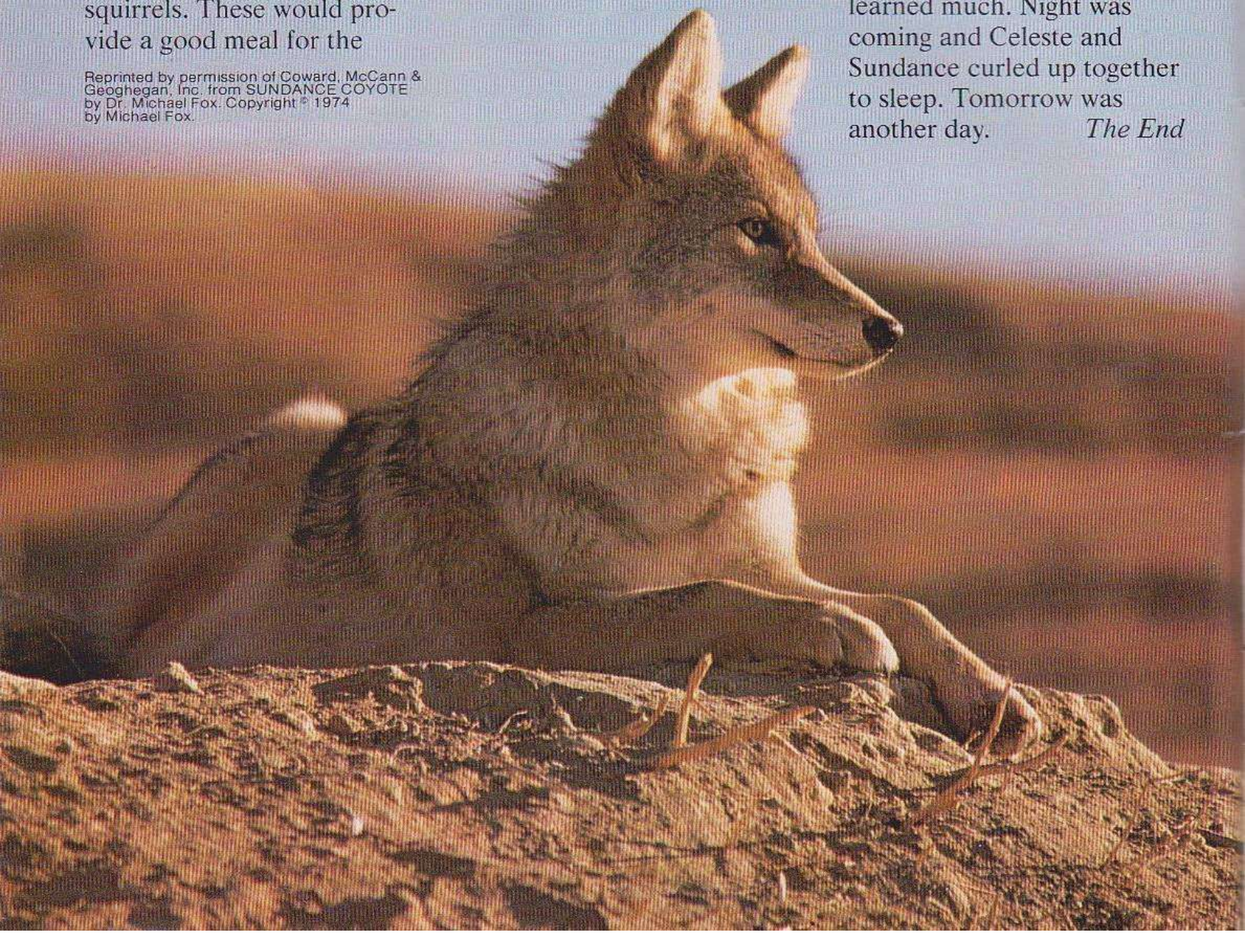

Photo by Stewart Cohen

070991

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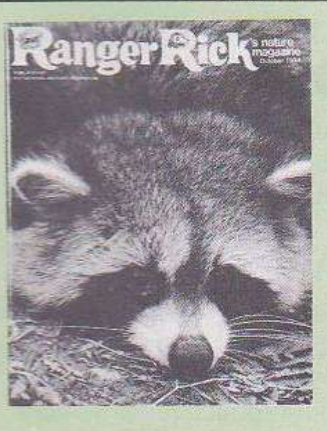

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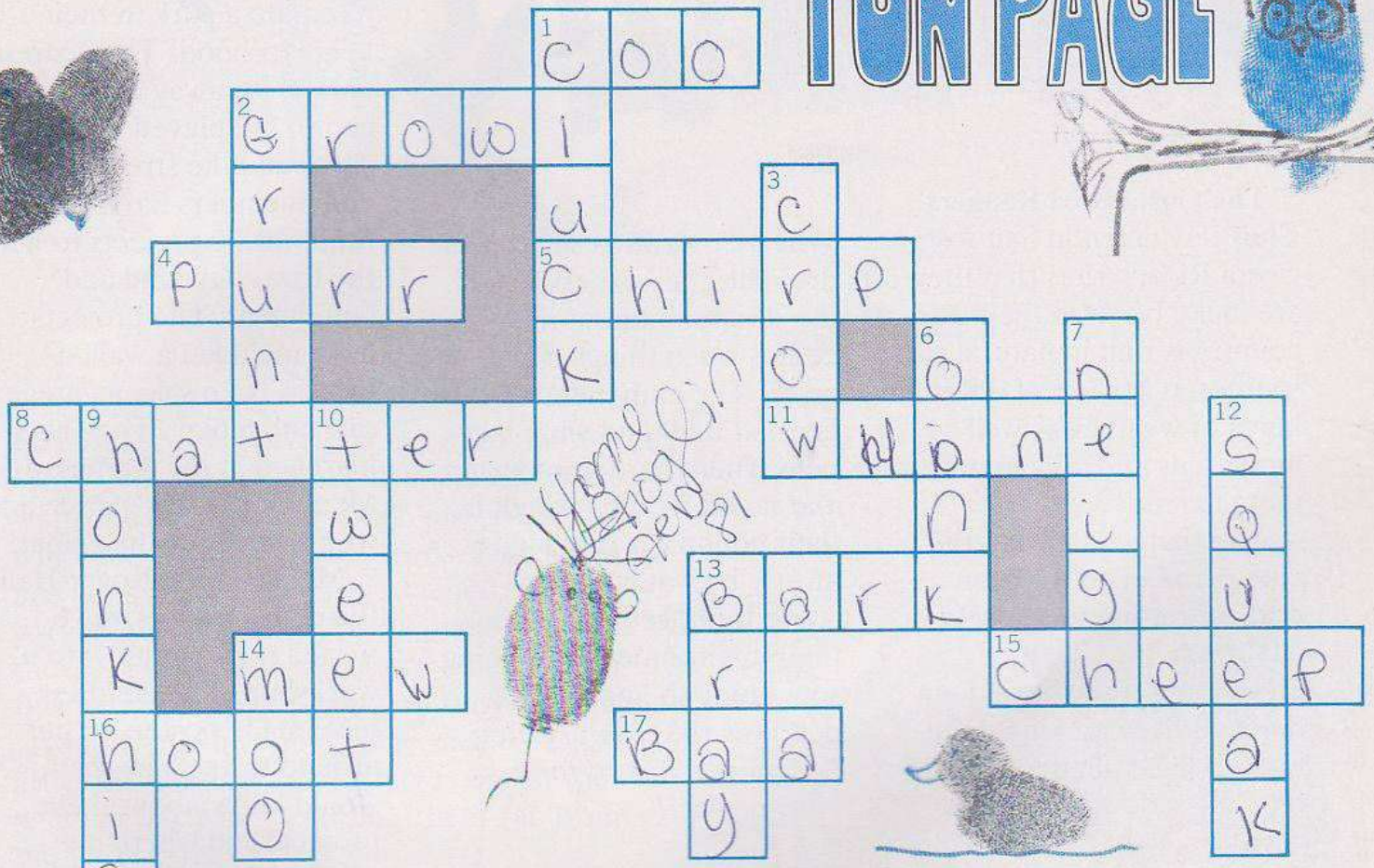
OLLIE OTTER'S FUN PAGE

ANIMAL SOUNDS

—Shirley Crow Stephens

Do you know animal sounds?
Try this crossword, and find out!



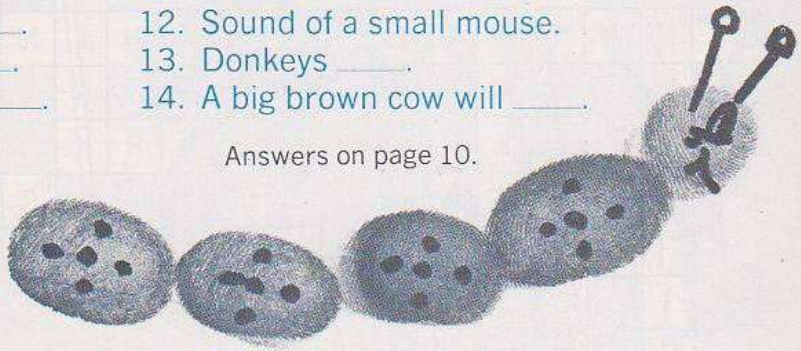
ACROSS

1. Sound a pigeon makes.
2. An angry dog will ____.
4. Happy kittens ____.
5. Baby birds ____.
8. Two busy squirrels ____.
11. Tired puppies often ____.
13. A watchdog must ____.
14. Hungry kittens ____.
15. Baby chickens ____.
16. Owls sometimes ____.
17. Fluffy lambs ____.

DOWN

1. Hens call their chick with a ____.
2. Happy sound of a muddy sow.
3. Roosters ____ at daybreak.
6. Hungry pigs ____.
7. A sound a horse makes.
9. Angry geese ____ ____. (2 words)
10. Canaries ____.
12. Sound of a small mouse.
13. Donkeys ____.
14. A big brown cow will ____.

Answers on page 10.



Fingerprints by Rangers Kathy Pogue, Hester Fuller, Mary Ainslie, Carl Goldschmidt, Allen Stearnst

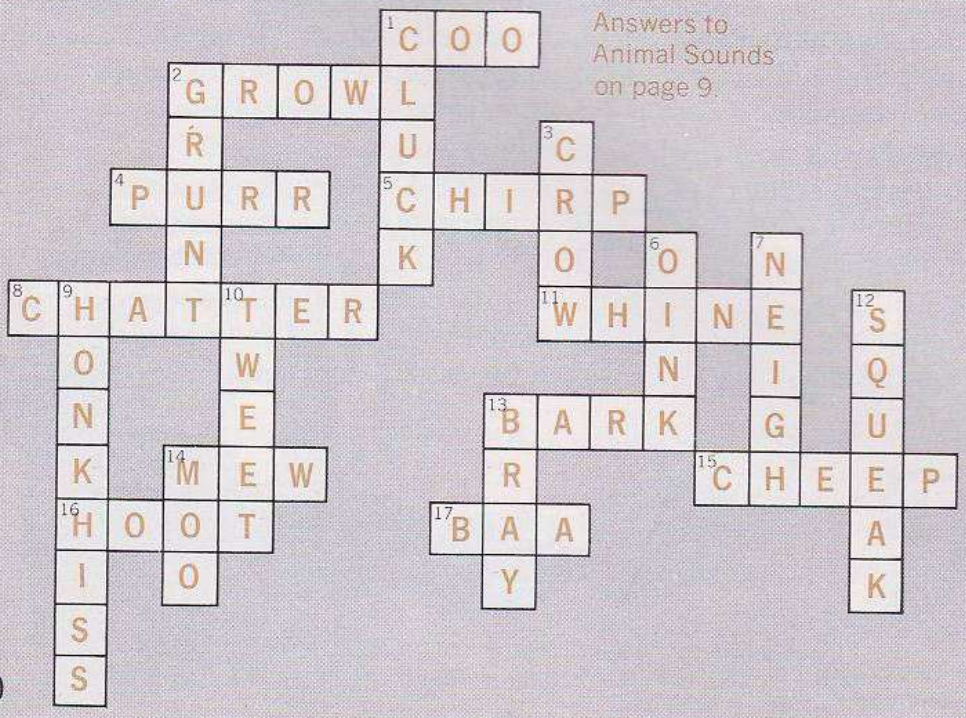
Nature Club News

The Costa Rica Rangers' Club way down in San José, Costa Rica, writes that they are lucky because their country is rich in natural resources. It has lots of different kinds of weather as well as mountains and volcanoes for them to study.

And that is just what the club members have been doing—getting to know their environment. Like many other clubs, they have done their share of picking up litter and have planted a garden on their school grounds.

When Costa Rica suffered a drought, they experienced the disappointment that comes when things don't grow! The club members also learned firsthand what happens when there is no water *and* no electricity, which in their country is provided mostly by water power.

We think getting to know their environment and doing something to improve it deserves the *Conservation Excellence Award for a class project!*



Answers to Animal Sounds on page 9.

Another award goes to the **Hall's Tara Nature Club of Mundelein, Illinois.** The members are working hard to create a park in their neighborhood! The nearest park is far away and ball games are played in small yards and the street. The club members have held fund-raising projects to help the town buy land and equipment. The projects have included a walk-a-thon, a bake sale, a garage sale and a play. They also marched in the Annual Mundelein Days parade and won a prize for their float!

Mr. and Mrs. Roger Hall, the club's leaders, have turned their garage into a workshop. The children have made posters to put around town so people would know about their projects and where the fund raising affairs are being held. They have also painted rocks to be sold as paperweights.

The park isn't a reality yet, but the club members are working hard to reach their goal. Don't you think they deserve the *Best Neighborhood Club Project Award?* We certainly do!

We would like to hear from other clubs too. Write and tell us what you're doing.

TRAVELING SEEDS

by Cheryl Morgan

FLYING. Most traveling seeds go by air. When you blow off a dandelion's fluffy white head, you are doing just what the wind does—spreading its seeds. Dandelion and milkweed seeds are attached to silky parachutes that help carry them through the air. Cottonwood seeds are covered with fine hairs that help them fly through the air.

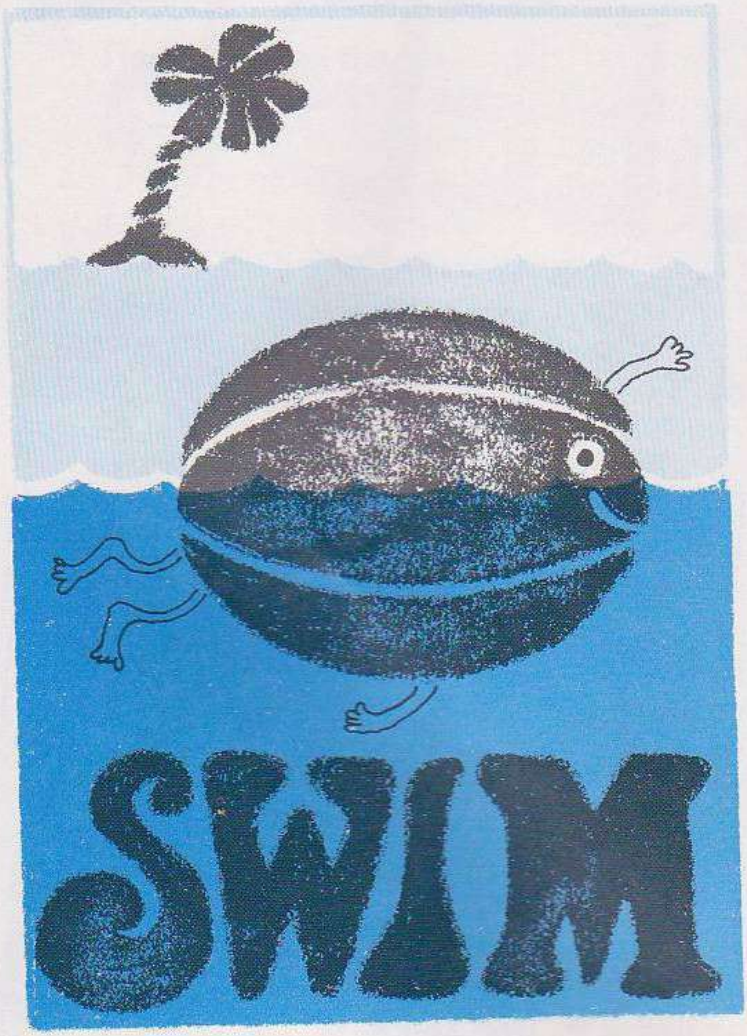
Maple, elm and many pine seeds are like little helicopters. They have wings that whirl in the wind, carrying them far from the parent trees.

There are seeds so small and light they need no parachutes, hairs or wings to help them fly. People in airplanes have collected grass seeds 915 meters (3000 feet) in the air! Orchid seeds are as fine as dust. Just one ripe orchid pod holds millions. If you breathe on them gently, they billow up like a cloud. The wind can blow tiny seeds like these for hundreds of kilometers.

Other seeds use the wind to travel along the ground. Some seeds fall after the first snow, and the wind sends them sledding over the frozen surface. When the snow melts, they may sink down to the earth and start to grow. *Please turn the page*

A fluffy white dandelion seed blows in the wind.
A boy pulls a sticker out of his sock.
A squirrel hides a nut.
The wind, the boy and the squirrel are helping to scatter seeds.

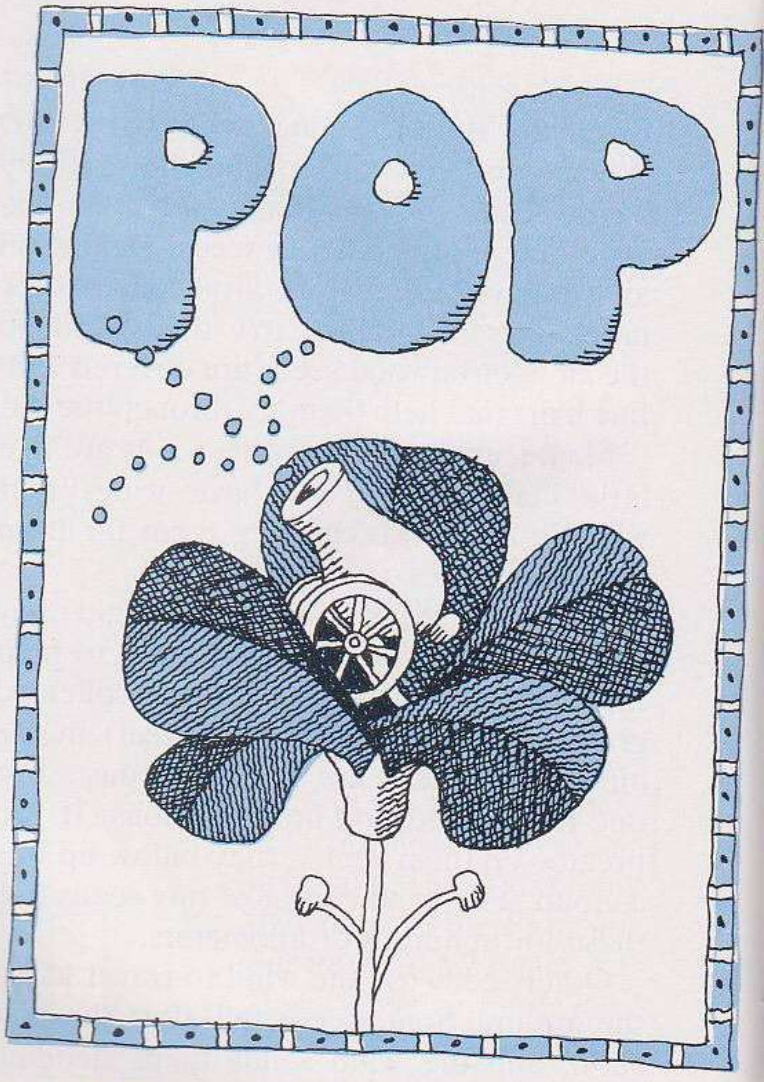
Other seeds cartwheel across the ground. Have you ever seen big, brown tumbleweeds blowing across a desert or prairie? When these bushes are full of ripe seeds, they dry out and the root shrivels up. Then the first wind to come along uproots the plant and rolls it along the ground, scattering seeds as it goes.



FLOATING. A few plants send their seeds for river or ocean cruises. Some plants that grow in the water release their seeds there. The American lotus—a kind of water lily—does this. Its seed pod is a sturdy little boat that can float for a long time.

Other plants grow along the water's edge. Their seeds fall in and drift downstream. If you look closely along a stream bank, you can often see clusters of sprouted seeds that have floated to shore.

Coconut trees have sailing seeds too. The trees grow in large groves along tropical beaches, and many coconuts fall into the ocean. Because the nut is waterproof and floats, the seed inside stays dry in its own "life jacket." Usually it just bobs along the coast until it is tossed onto shore to root and grow. But sometimes a coconut drifts out to sea and floats on the ocean's currents to a distant island.



EXPLODING. Can you imagine plants that snap, crackle and pop? Tap the touch-me-not's seed pod and it explodes with a *snap*! The pod is made of five little strips that

grow tighter and tighter over the seeds inside. When ripe, the strips spring apart at the slightest touch. They hit the seeds and flip them in all directions.

The seed pod of the wild geranium is spring-loaded too. But its seeds are attached to the springs. When the springs snap, they throw out the seeds the way you throw a baseball.

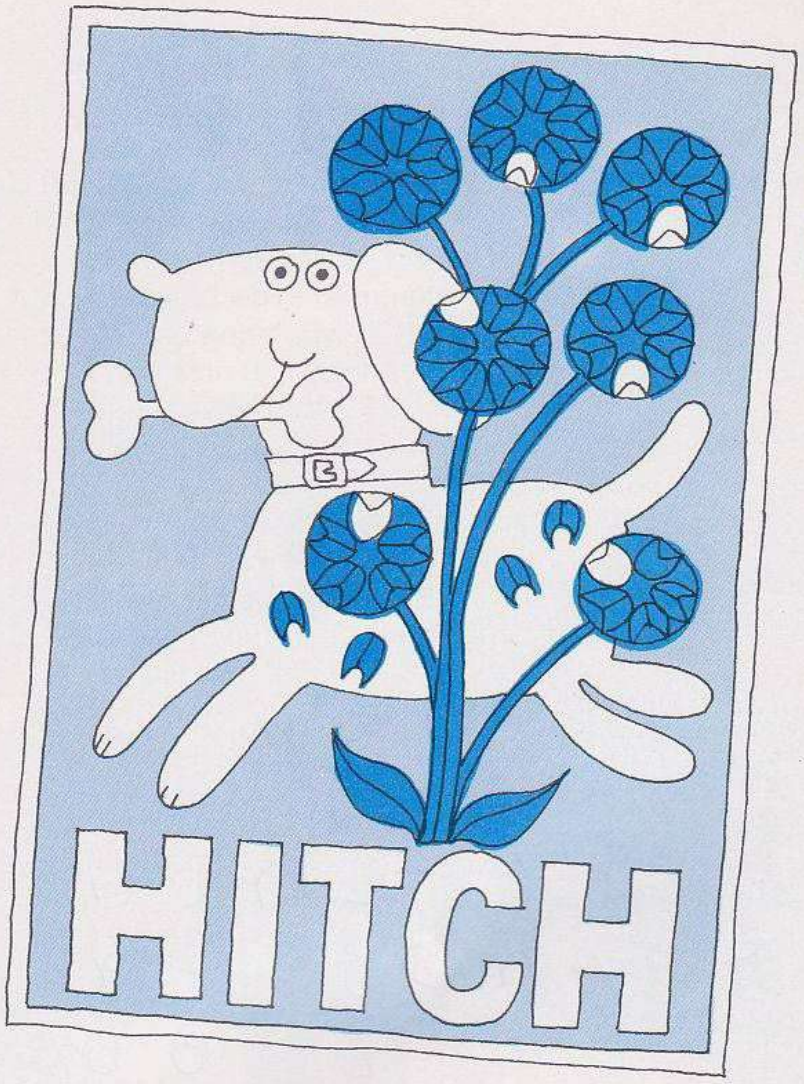
Have you ever pinched a slippery watermelon seed between your thumb and finger and popped it away? This is how violet and witch hazel plants scatter their seeds. The sides of the seed pods open at one end and squeeze harder and harder on the seeds inside. *Pinch, POP!*

HITCHHIKING. Some seeds hitchhike. The next time your dog bites at a sticker in his fur, look for the hooks or claws the seed uses to hitch a ride. Cockleburs, burdocks and sticktights all travel like this. They are bitten, brushed or bumped off somewhere along the way, to begin another pesky plant.

There are some seeds that will hitch rides on the muddy feet of swamp creatures. A migrating duck with dirty feet can carry seeds hundreds of kilometers away.

Some seeds have a sticky coat that helps them hitchhike. Oily mistletoe seeds stick to birds' beaks. At clean-up time, the birds wipe their bills on tree branches, leaving the mistletoe seeds behind.

Animals can be helpful litterbugs. When squirrels hide walnuts and hickory nuts for a winter's snack, some may be forgotten and begin to grow. The chickaree, a little red squirrel, opens sequoia cones to eat the seeds inside. As he nibbles away he scatters some of the seeds around. Blue jays dig holes with their bills and bury acorns. But just like the squirrels, they often forget to come back for the food.



Drawings by Bill Barron

Even animals who swallow seeds help them to travel. Some seeds are digested, but many—like the raspberry, cherry and saguaro—pass undigested through the animals' bodies to sprout and grow.

Birds sometimes plant trees this way. In the eastern United States, you can see red cedar trees stretched out in long straight rows. Perhaps years ago a fence was there, and cedar waxwings came to perch and eat their favorite food—the fruit of the red cedar. The undigested seeds of their dinners grew into a long line of trees that kept growing long after the fence had rotted away.

You help seeds travel too—when you pop a touch-me-not pod or when cockleburs stick to your socks. And where did you spit out last summer's watermelon seeds?

The End

TARRED FEATHERS

by Vivian Vernon

"Stop the tractor, Dad!" Dale yelled above the roar of the tractor's motor and the clatter of the corn planter they were hauling down the road.

Mr. Porter figured something must be wrong, so he stopped on the shoulder of the road. Dale jumped off and raced up the road.

"What's wrong?" his dad called after him.

"They're stuck! Back at the crossroad! We've got to help them!" Dale yelled over his shoulder.

"Who's stuck? Shall I bring the tractor?" Mr. Porter shouted.

"No, I'll get them. They're baby bobwhite quail," Dale puffed.

"You poor little things," Dale said as he reached the intersection. He swung his long legs over the barricade that had been placed there to keep cars off the freshly tarred road.

The road seemed full of loudly peeping baby quail. Their newly feathered wings were beating rapidly as they tried to free their feet, which were stuck in the gooey tar. The mother quail fluttered back and forth between the babies and the bushes, trying to coax the little ones to follow her.

Dale pulled off his battered hat. He lined the hat with his red kerchief and set it against a rock. By the time his dad reached the barricade, Dale had rolled up the legs of his blue jeans.

"Is it okay if I wear my sneakers in the tar, Dad?" he asked. "They're my old ones." Without waiting for an answer he stepped onto the gooey, sticky tar. The smell almost choked him. He gently pried the tiny quail feet loose, and one by one handed the trembling birds to his dad.

"What are you going to do with them?" his dad asked.

"Take them home and clean them up."

"What then?"

"Bring them back here to their mother, of course."

"How're you going to get the tar off their feet and wing feathers?"

"Don't you know?" Dale asked, surprised that his dad didn't have the answer.

"Sorry, this is my first experience at a tar-and-feather party," his dad joked.

"We could wash them in gasoline," Dale suggested hopefully.

"Their skin is too tender. Gas would burn them," answered Mr. Porter.

"Will detergent take it off?" asked Dale.

"Don't think so, but we can try," his dad said as he put the last of the thirteen baby quail in Dale's hat.

"It looks as if you left a sticky memorial to your rescue mission," he laughed as Dale pulled his own feet free of the clinging tar and left a pattern of tracks behind.

"Boy, wait'll Mom sees these," Dale said, cleaning his sticky shoes on a clump of grass.

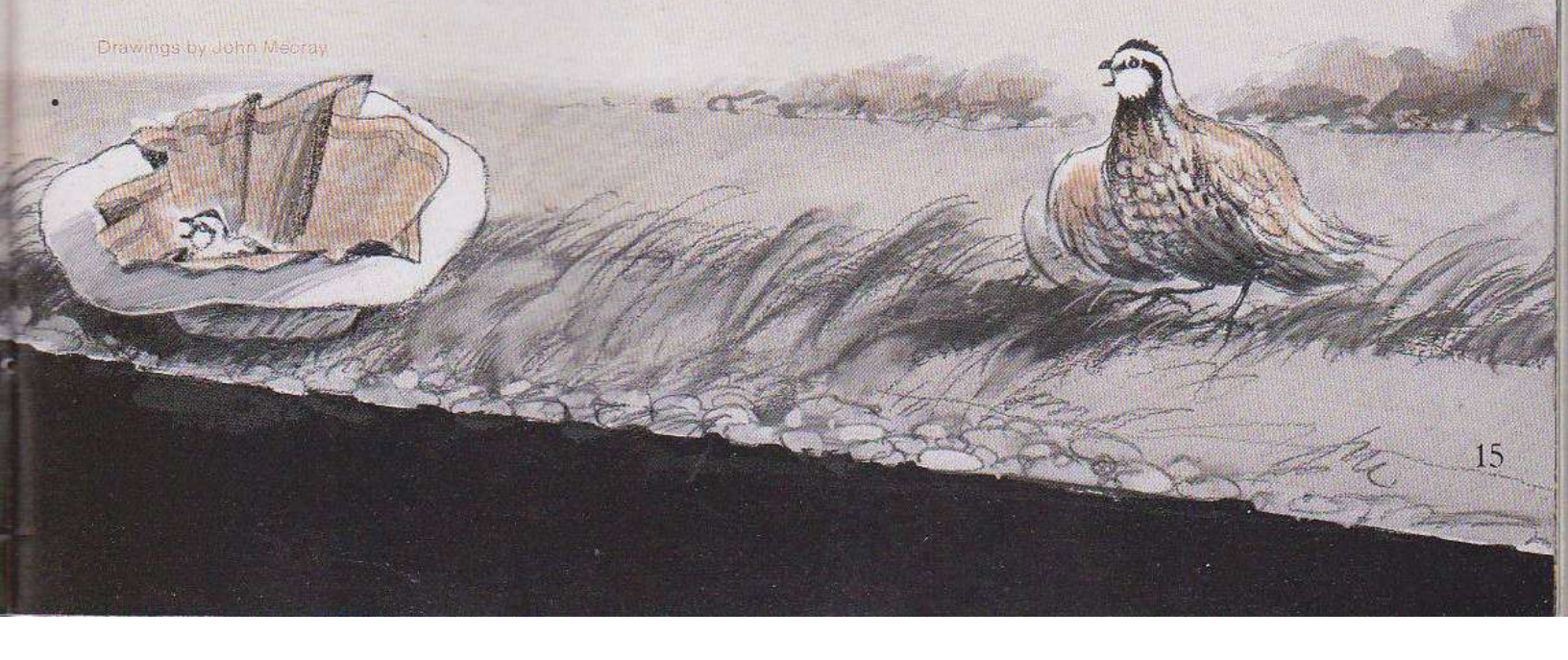
"She'll be so excited over the quail she won't even see your shoes," his dad assured him.

"I'll bet Mr. Corey, the conservation agent, can tell me how to get the tar off these birds," Dale said as he cradled the hatful of chicks in his arms and started for the tractor.

"Good idea. That's using your head," Mr. Porter said approvingly. Then, noticing the mother quail, he added, "We're leaving an unhappy mother back there, Dale."

Please turn the page

Drawings by John Mecray



"Look, Dad," Dale said, "She's limping and dragging her wing as if she's trying to get us away from her babies. She doesn't know they'll die unless we save them."

"At least we *hope* we can save them," his dad said cautiously.

"Let's hurry so we can get them back before she leaves," Dale suggested. And he ran to the tractor.

Dale held the hatful of birds in his arms as they clattered down the road. When they drove into the barnyard, he could see his mother sitting in the porch swing. He jumped off the tractor, kicked off his sneakers and dashed onto the porch.

"Here, Mom, hold these. I have to call Mr. Corey," and he plopped the hat in her lap.

"Baby quail!" she exclaimed, looking excitedly at the messy hatful of squirming, chirping chicks.

"They got caught in the fresh tar on that road by the intersection. I've got to find out how to clean them, fast," Dale said as the screen door slammed behind him.

Tail feathers still damp with oil, one of the bobwhite quail peeps at his mother.

Mr. Corey's voice over the phone was reassuring: "Try some vegetable oil," he said. "That should take the tar off. If it doesn't, let me know."

"Okay, thanks a lot, Mr. Corey," Dale said. He ran into the kitchen shouting, "Hey, Mom, please bring in the birds. Mr. Corey says vegetable oil will clean them!"

Dale spread newspapers on the floor and filled a bowl with vegetable oil. "Mr. Corey was right. It works," he said, washing the quails one by one. His mother rubbed them gently with an old towel and put them in a grocery carton.

By the time they finished, a pink and purple sunset was beginning to color the sky. Mrs. Porter drove Dale and the birds to the barricade.

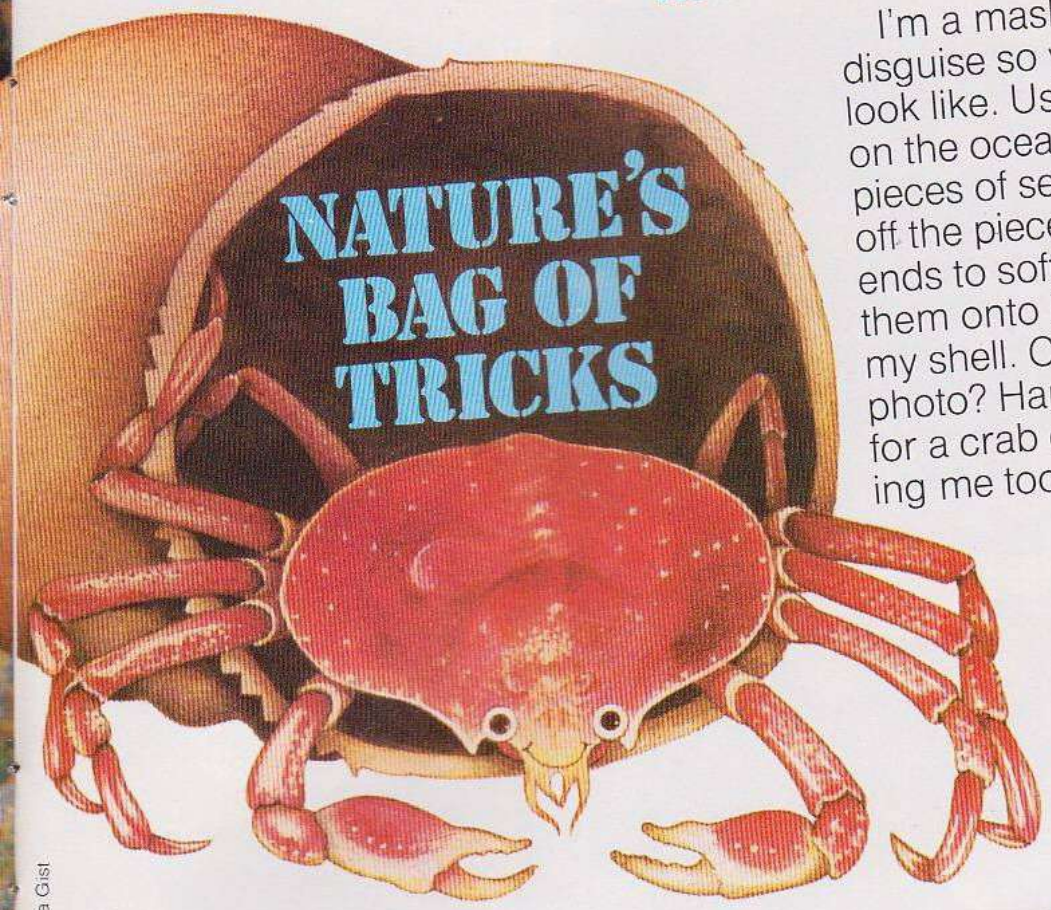
"She's still there, Mom," Dale said happily when he saw the mother quail whisk into the bushes. He lifted the grocery carton from the back seat and carefully tipped it on its side in the grass. Thirteen little chicks squirmed and pushed over one another and fluttered their tar-free wings as they ran to their mother. Several of them went to the edge of the roadbed, then ran after the others into the bushes.

"Looks like they've learned their lesson," Dale laughed.

Mrs. Porter glanced at her watch. "And you've missed your Scout meeting," she reminded him.

"I've missed the meeting, but I've done thirteen good deeds today." Dale grinned as he plopped onto the car seat. "That's a record for me!"

The End



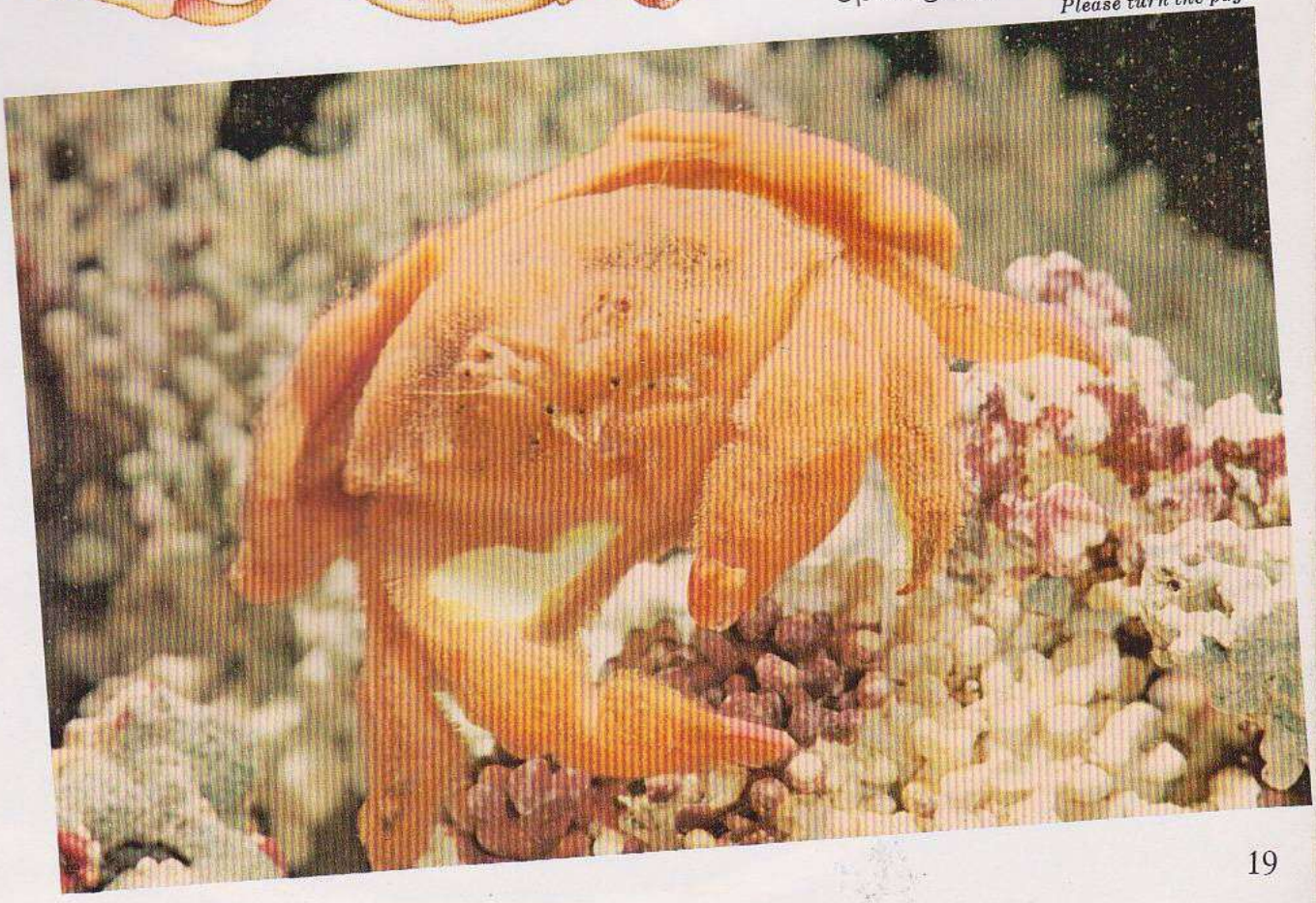
TRICK 5: PUT ON A DISGUISE

by Robert L. Dunne

I'm a masking crab. I only took off my disguise so you could see what I really look like. Usually when I walk around on the ocean bottom, I'm covered with pieces of seaweed and sponges. I tear off the pieces with my claws, chew the ends to soften them, and then stick them onto little hooks that are all over my shell. Can you find me in the big photo? Hard, isn't it? Predators looking for a crab dinner have a hard time finding me too!

My cousin, the sponge crab, ▼ carries its disguise around on its back. It cuts one piece of living sponge so carefully that it fits like a cap. When the crab squats motionless, it looks like a stone with a sponge growing on it.

Please turn the page



Photos by Ron Church; Jane Burton/Bruce Coleman Inc. Drawing by Linda Gist

Many of my insect friends put on disguises too. This ◄ young spittlebug blows bubbles from the end of its body until it is covered. Hidden from hungry predators, the spittlebug sucks juices from the plants it lives on.

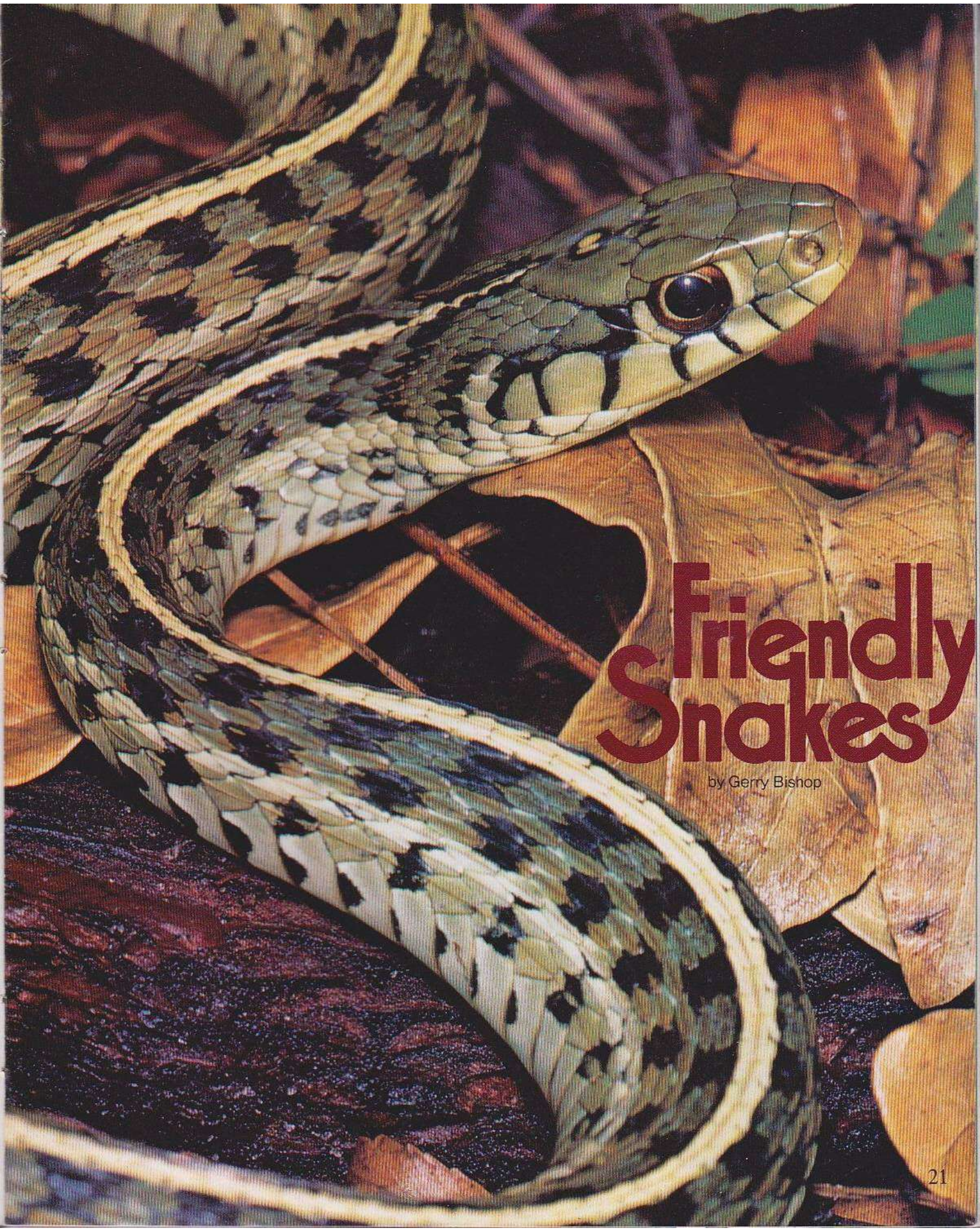
◄ The bagworm caterpillar and the

◄ aphid lion carry their disguises wherever they go. The bagworm makes a tube of silk and lives inside. Twigs or pieces of leaf from the tree on which it feeds are glued on the outside. The aphid lion looks like a crawling trash pile. The trash is the skins of small insects — the remains of past meals. The aphid lion puts them on hooks that stick out from its body.

Photos by Robert L. Dunne; Dr. Glenn Irwin/Photri; Edward S. Ross

Pretty good disguises, aren't they!

The End



Friendly Snakes

by Gerry Bishop

Garter snakes (page 21) and those on the following pages would never come up to you and shake hands. (How could they even if they wanted to?) But when you get to know them, they are so likeable you can call them your friends.

Have you ever turned over a rock and met a garter snake? There are more garters found in more places than any other snake in the United States. They come in many colors and patterns, but you'll never mistake that friendliness!

Mole snakes are friendly too. But when a hungry mole snake meets another snake it may do a very unfriendly thing—eat the other snake! The mole snake eats even poisonous snakes. It is not harmed by their bite.

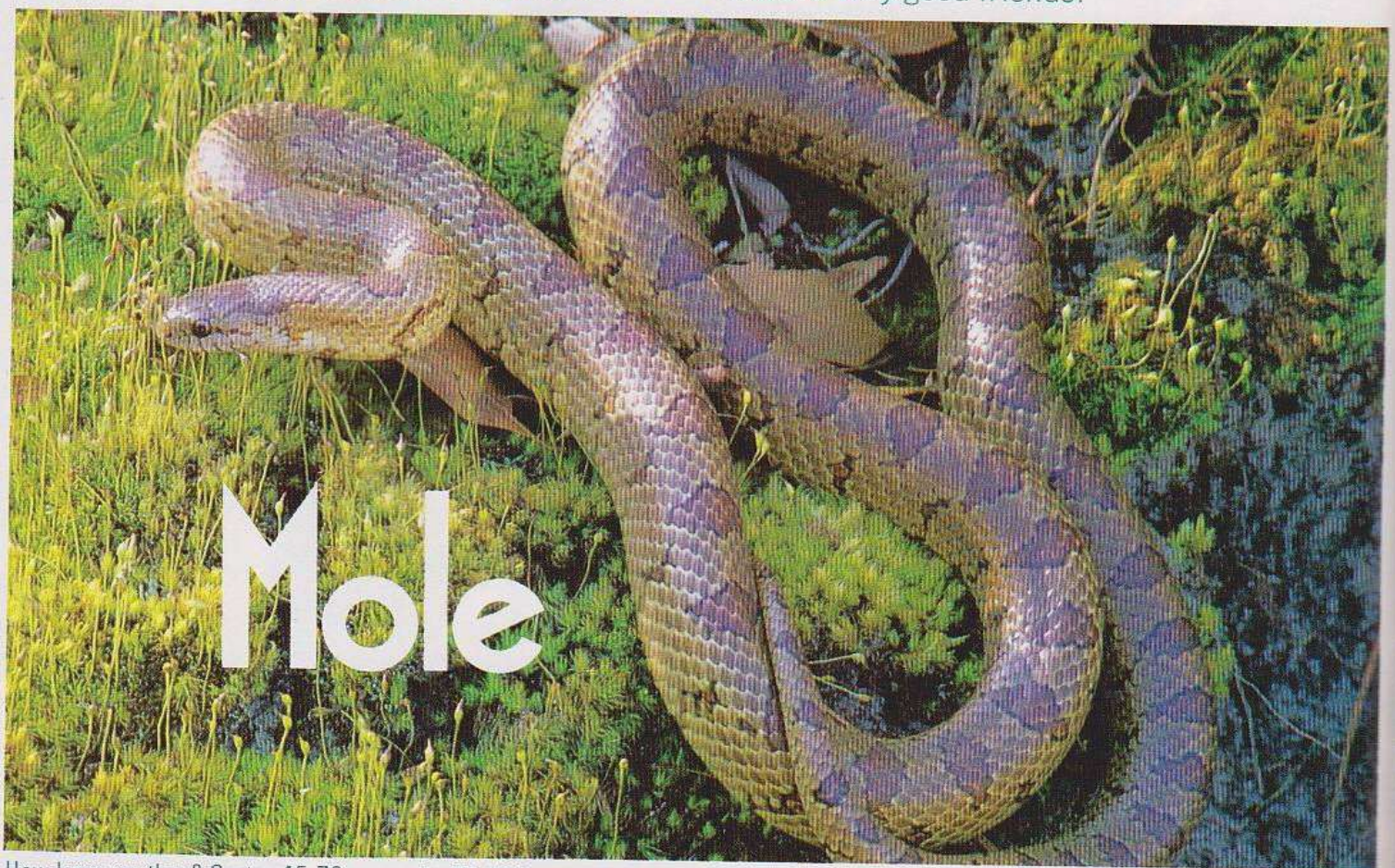
Mole snakes live all over the southeastern states, but you may not find many. Why? Because (as you may guess from their name) they burrow in the ground. After a hard rain they may come wiggling up like giant earthworms.

Yellow-bellied racers, which live in the midwest, are hard to find too, but for a different reason. They can zip out of sight so fast you'll never know they were near. These speedy rat-eaters have no trouble outrunning you, but hawks and owls find them easy prey.

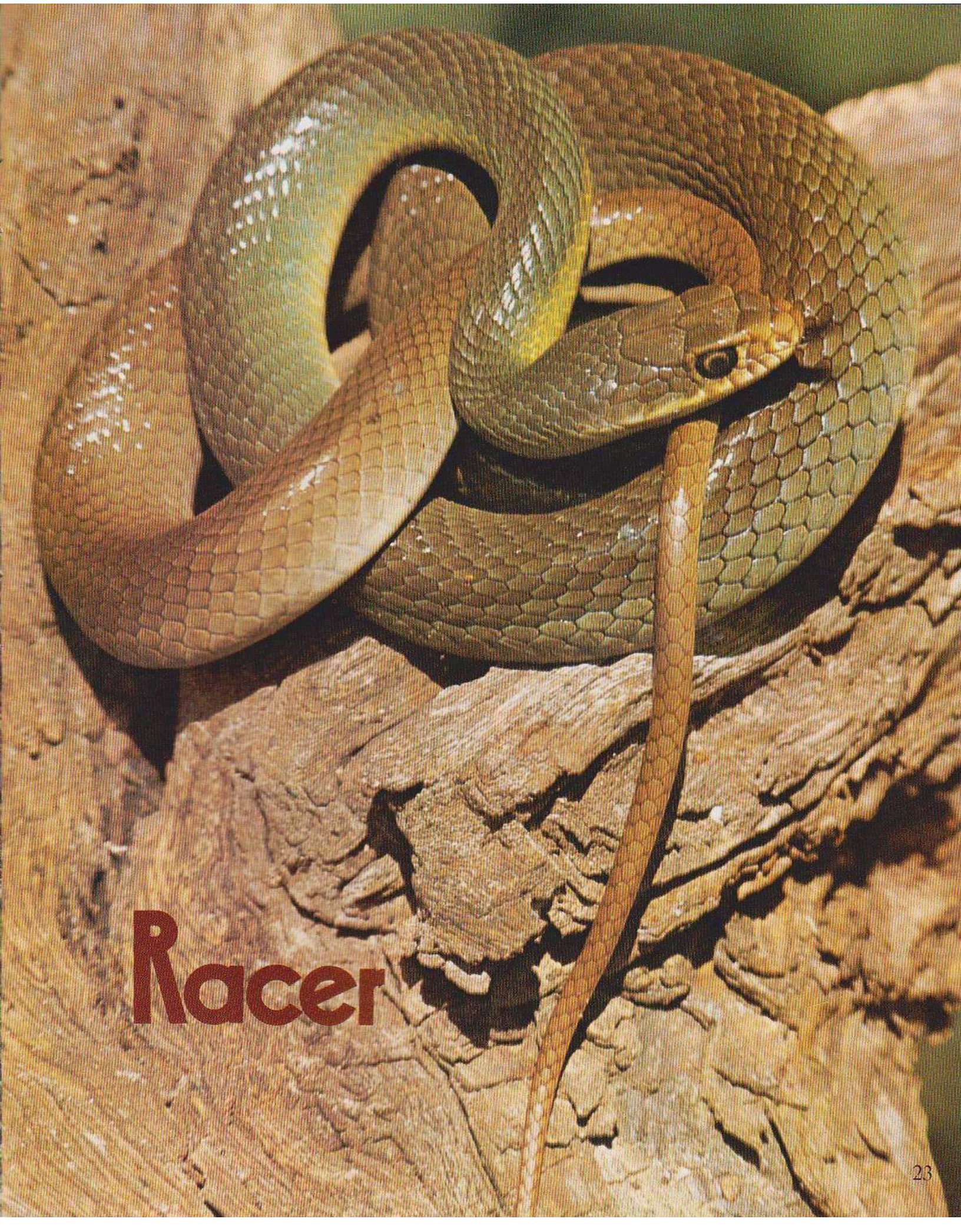
To find a **rough green snake** you have to look up, not down. The rough green is an expert tree climber that lives in the southeastern states. It looks so much like a vine twisting among the leaves that it has the nickname "vine snake."

Do you have a shy friend? You do if you know the **scarlet king snake.** But why would a shy snake show off in such a fancy costume? It copies the colors of the deadly coral snake, which is its southeastern neighbor. Predators can't tell the difference, so they leave both snakes alone.

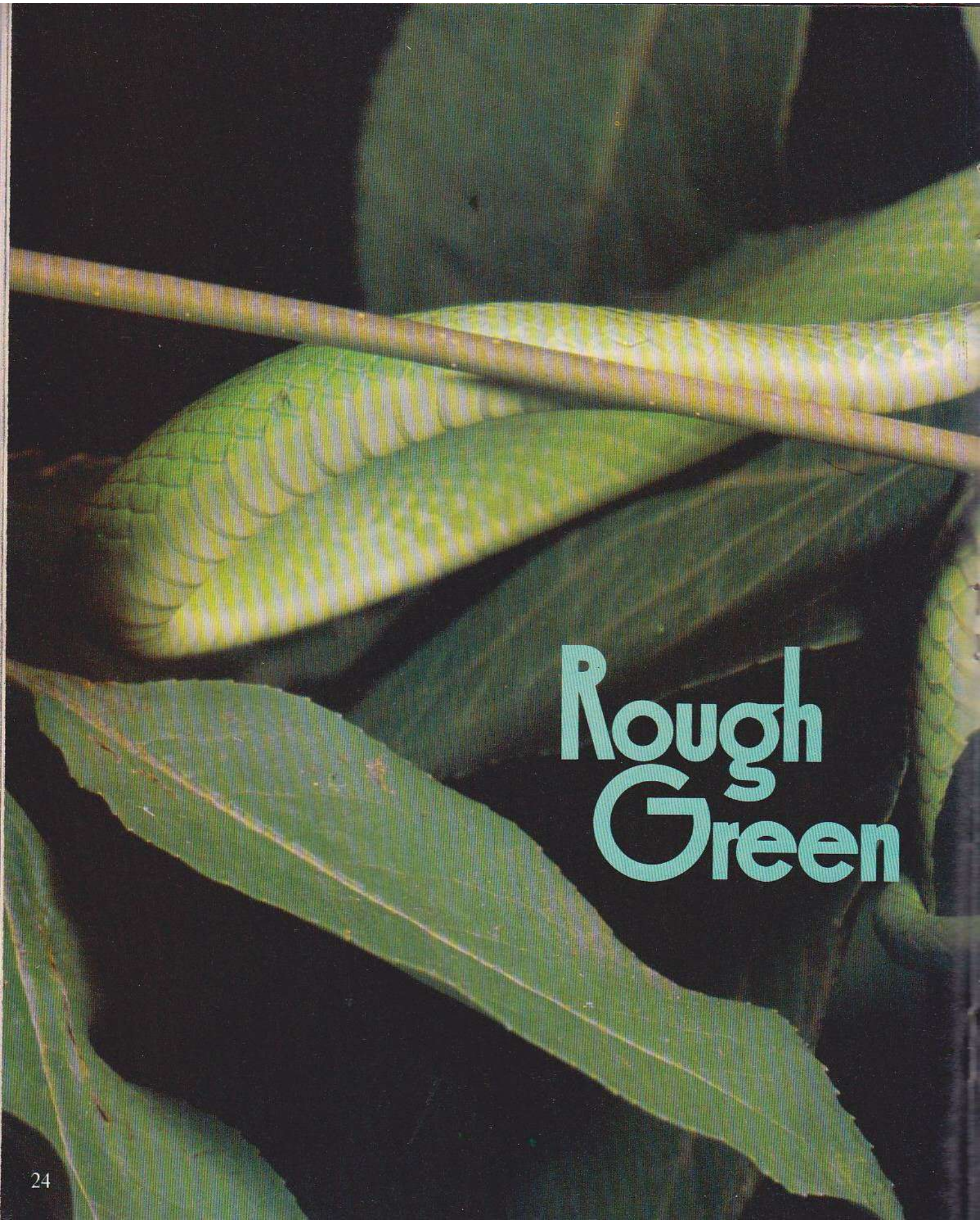
If you spend enough time looking, you may meet lots of gentle, harmless snakes where you live. Just remember—even though they don't (and can't) slither up and shake hands, they still are very good friends!



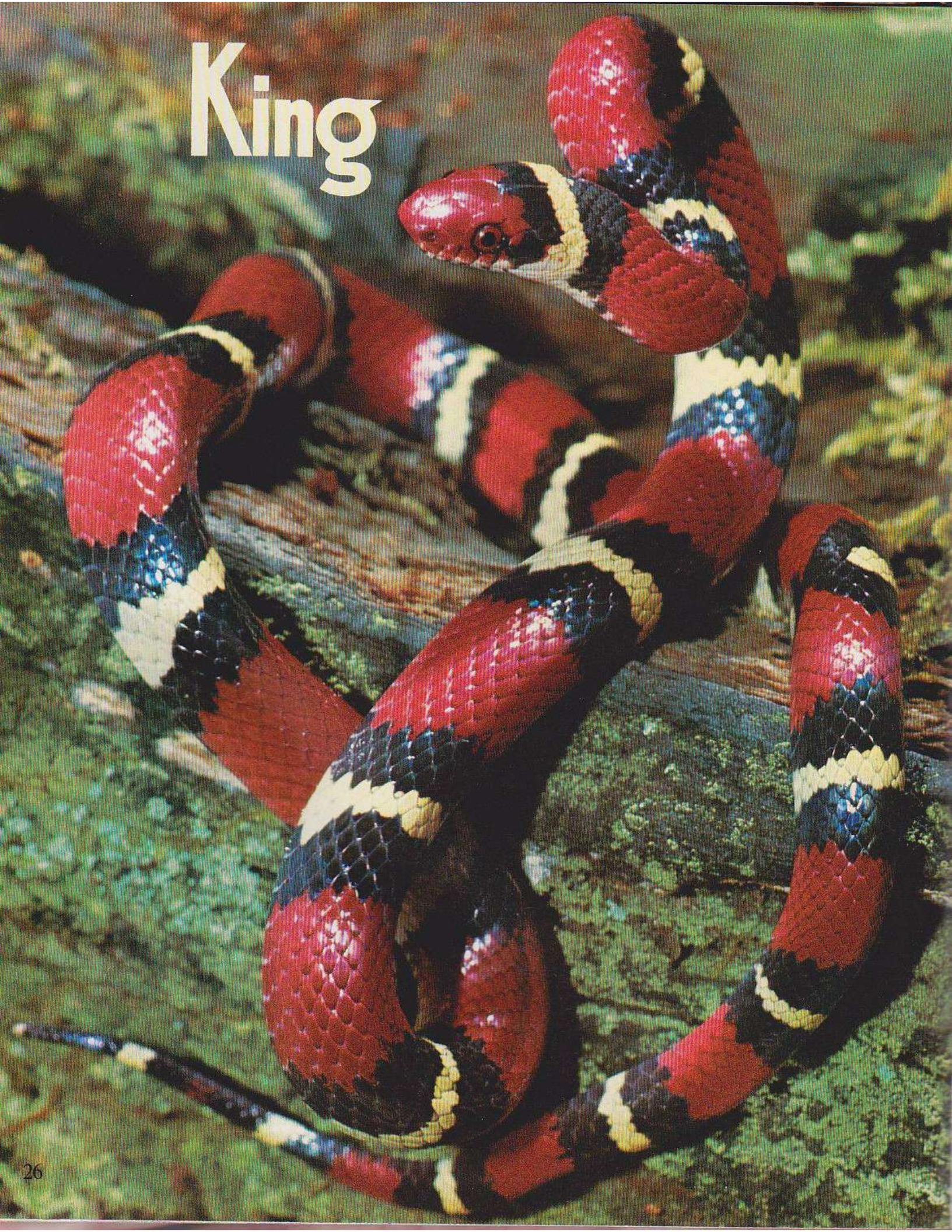
How long are they? Garter 45-70 cm, mole 75-100 cm, yellow-bellied racer 75-125 cm, rough green 55-80 cm, scarlet king 35-50 cm.



Racer


Rough
Green

King



Ranger Rick and his friends

Adventure 85 A Call for Help

by Robert A. Brownridge

A beautiful, big harvest moon hung in a black, cloudless sky as Ranger Rick and his friend, Ollie Otter, scampered down a forest trail. They were on their way to meet an old friend, Ruth Rabbit, who had sent word that wildlife was in trouble in Farmland and needed help.

"November nights are chilly around here," said Ollie; "You have to move along pretty fast to keep warm."

"You sure do," answered Rick. "We're almost there now and I'm sure Ruth will have a nice place for us to stay. There's always been plenty of shelter."

"As a matter of fact," added Ollie, "things have always seemed so good up here, I wonder what their problem is."

"I don't know," Rick replied. "The message was short. It just said to come quickly."

No sooner were the words out of his mouth than a loud, deep sound filled the air around them. "Hoo, hoo-hoo, hoo-hoo," came the weird, piercing notes.

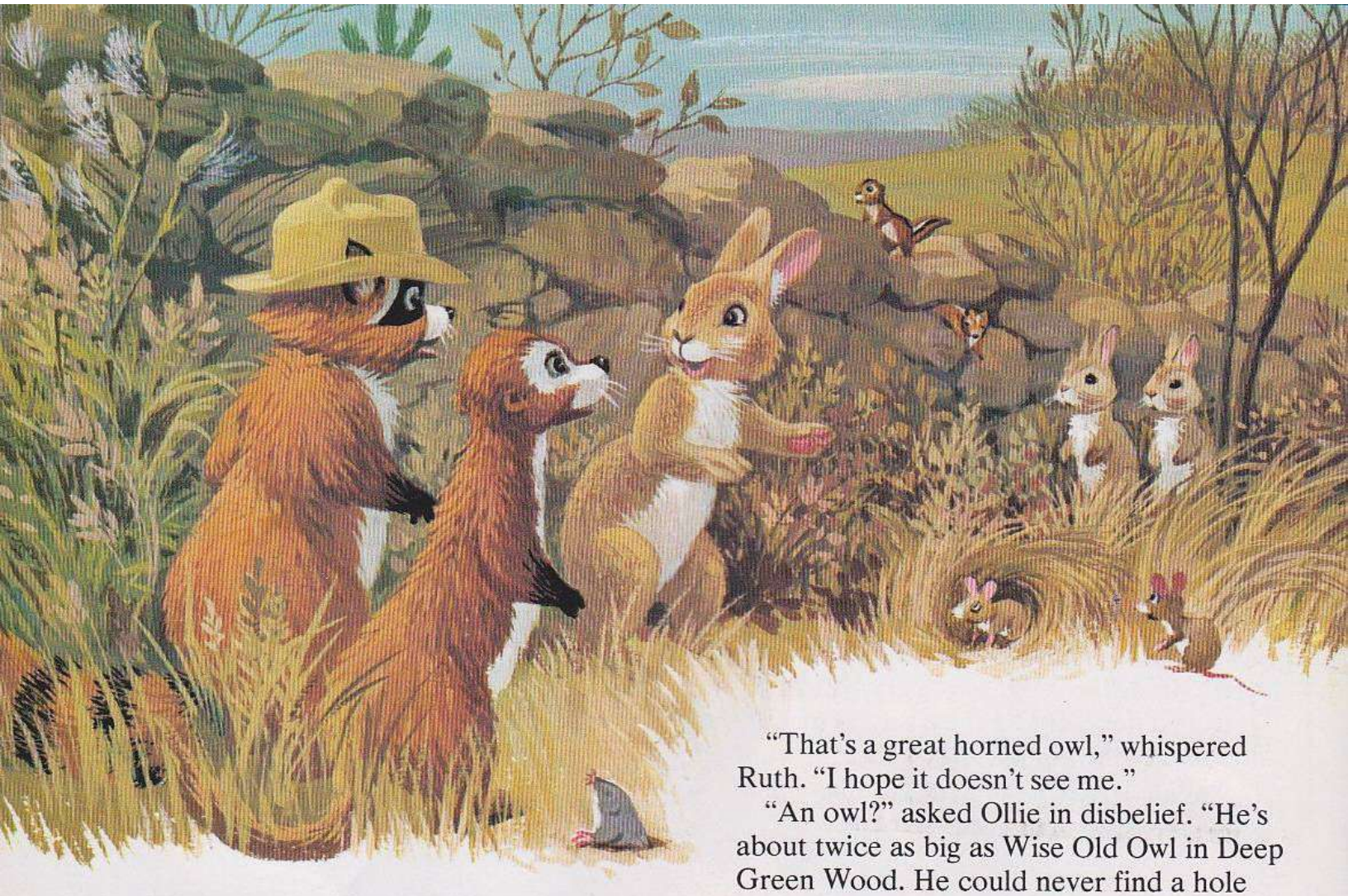
Rick and Ollie skidded to a stop and looked fearfully up into the treetops where the sound was coming from.

"Yipe," shouted Ollie, terrified at the sight he saw.

"Oh, my goodness," gasped Rick. "What in the world is that?"

Please turn the page

Photos by James H. Carmichael, Jr. (21); Jack Dermid (22, 26); John Tveten (23); Alvin E. Staffan (24)



They were looking at a fearsome figure silhouetted against the full moon. A huge body, topped by a round head with two horns, was sitting on the edge of a big nest. Slowly it spread its wings.

"It looks like the worst kind of Halloween spook . . . ," choked Ollie, shivering from fright.

"Hi, fellows," came a voice from behind a nearby tree.

"We're surrounded," shrieked Ollie. He turned to run, but his foot caught on a root. He tripped and rolled over and over until he banged into a tree. He lay there for a moment in a daze. Then, looking up, he found himself nose to nose with a rabbit.

"My gracious, you certainly are excitable," said the rabbit. "I've never frightened anyone before."

"Hi, Ruth," whispered Rick as he slipped quietly up beside his friends. "What in the world is that creature up there?"

"That's a great horned owl," whispered Ruth. "I hope it doesn't see me."

"An owl?" asked Ollie in disbelief. "He's about twice as big as Wise Old Owl in Deep Green Wood. He could never find a hole big enough to nest in back there."

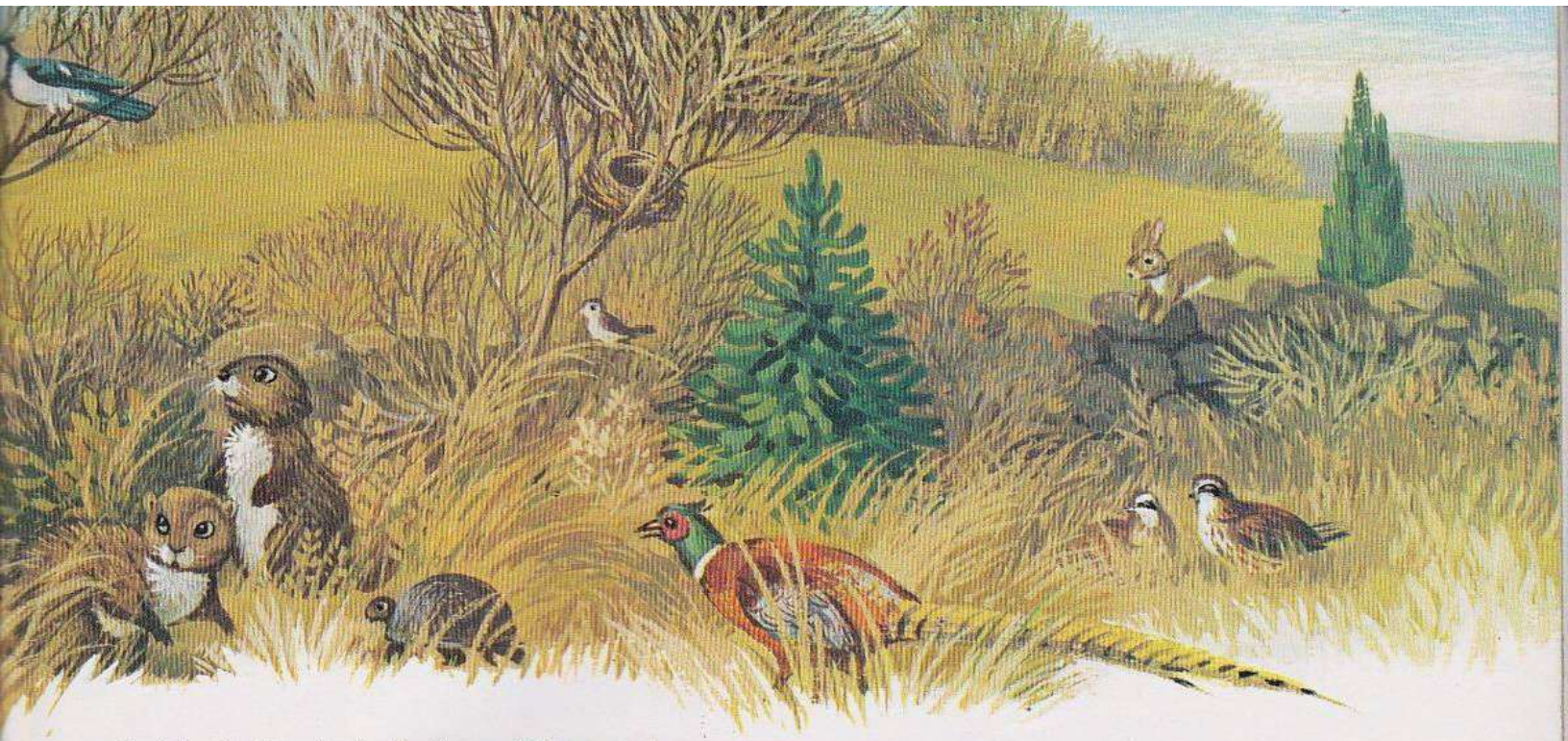
"He doesn't have to worry about that," laughed Ruth. "He takes over and remodels an old crow's nest or some other large nest when he can find one."

"I hope you've picked out a nice spot for us to rest for awhile, Ruth," said Rick. "We've come a long way and that fright we had has left me very tired."

"Good hiding places are hard to find around here now," replied Ruth, "but I do have a place for you. Come on, follow me."

As the three animals reached the edge of the forest, they looked out over a big field. With the moon shining so brightly, they could see a few little figures running about looking for food. Not far away they saw several young rabbits feeding peacefully on a patch of tender weeds.

"That's my family," Ruth said proudly. "They're waiting for us."



Suddenly the dark shadow of the great horned owl glided across the field. Before she herself froze, Ruth looked anxiously toward her babies. Each one had crouched low in the grass. They were absolutely still.

The owl did not see the young rabbits because he had spotted a field mouse that had started to run. Like a rocket the owl dove at his prey and struck! In a second the owl was back in the air carrying his meal in his talons.

Everything was quiet for a few moments, but soon the normal sounds of wildlife hunting and feeding could be heard again at the forest's edge.

"It sounds to me as though there are a lot fewer animals here than the last time I came to visit," said Rick.

"You're right," answered Ruth, "and in the morning you'll see why. Your den is right over here in this tree so rest awhile and I'll see you in the morning."

Early next morning, Rick and his friends stood at the edge of the forest looking out across the fields.

"Boy," gasped Ollie. "That sure is a big field. It looks as if it goes on for miles without a break."

"Well, it doesn't quite go for miles," replied Ruth, "but it sure goes on for a long way before there's another fence."

"This used to be divided into many small farms with lots of fences and hedgerows," said Rick. "What ever has happened?"

"Hey—just a minute," cried Ollie. "What's a hedgerow?"

"It's a kind of fence formed by a row of trees or bushes growing close together," answered Ruth.

"Several years ago the little farms were all sold to one big farm group. With their big, expensive machines, it's easier for them to plow, seed and harvest one big field than a lot of little ones. So they took down all the fences and hedgerows which gave us wildlife so much food and shelter. That's why you heard so few animals here last night and why nesting and denning areas are so scarce."

While they were talking, the three friends wandered out into the field to get a better look. An old stone wall still stood along one side of the field. For several feet on either side of it, grass and bushes grew. They could see many nests and burrows under the bushes and along the stone wall.

Please turn the page

"You can see how wildlife uses areas like that wall," Ruth pointed out. "Now, with so many hedgerows and fences gone, we have to go farther for food. We have fewer homes, less food and less cover. There won't be nearly enough food for us this winter, so many animals will starve."

Their conversation was so serious that none of the animals saw a young fox slinking up between them and the woods. A blue jay scolded loudly from a perch high in a tree. But when Rick finally heard the jay's warning sound, they were far out in the field, and safety was a long way away.

Rick and Ollie darted off to the woods on the left. But Ruth, badly frightened, started in the other direction, away from cover. She ran at full speed and so did the fox.

When Rick and Ollie reached safety they watched anxiously as Ruth raced ahead of the fox. Inch by inch the fox began to close in on her.

"He'll get her, Rick!" cried Ollie "What can we do?"

Then, just as it seemed as if Ruth might become the fox's dinner, the fox let out a piercing yelp and leaped high in the air. That was all the time Ruth needed to quickly scamper for cover.

Having lost his prey, the fox turned away and began rubbing his nose with his paw.

"What happened?" asked Ollie.

Before he had a chance to answer, Ruth rejoined her friends. "Boy, that was close!" she said as she nuzzled her babies. "I don't know what saved me, but I'm lucky to be alive."

"One of your blue jay friends saw what was happening, Ruth," explained Rick, "and since the fox was busy chasing you, she had a good chance to dart at the fox and give him a sharp nip on the nose."

"Well, I'm glad my young ones and I are safe, but you can see how badly we need help. I can't teach my young ones to hide from hunters and predators if there's no place left to hide. And I can't teach them to find food if there is none."

"Yes," agreed Rick. "I'll tell my Rangers to spread the word that more animals and birds die by loss of habitat than by any other way. So everyone—farmers, hunters, nature lovers—should work together to provide us with food and shelter. Then we'll be able to take care of ourselves." *The End*

Drawings by Lorin Thompson

Just Sew

by Candida Palmer

Would you like to make a terrarium with animals you don't have to feed? If you do, just sew creatures like these.

Photos by Robert L. Dunne

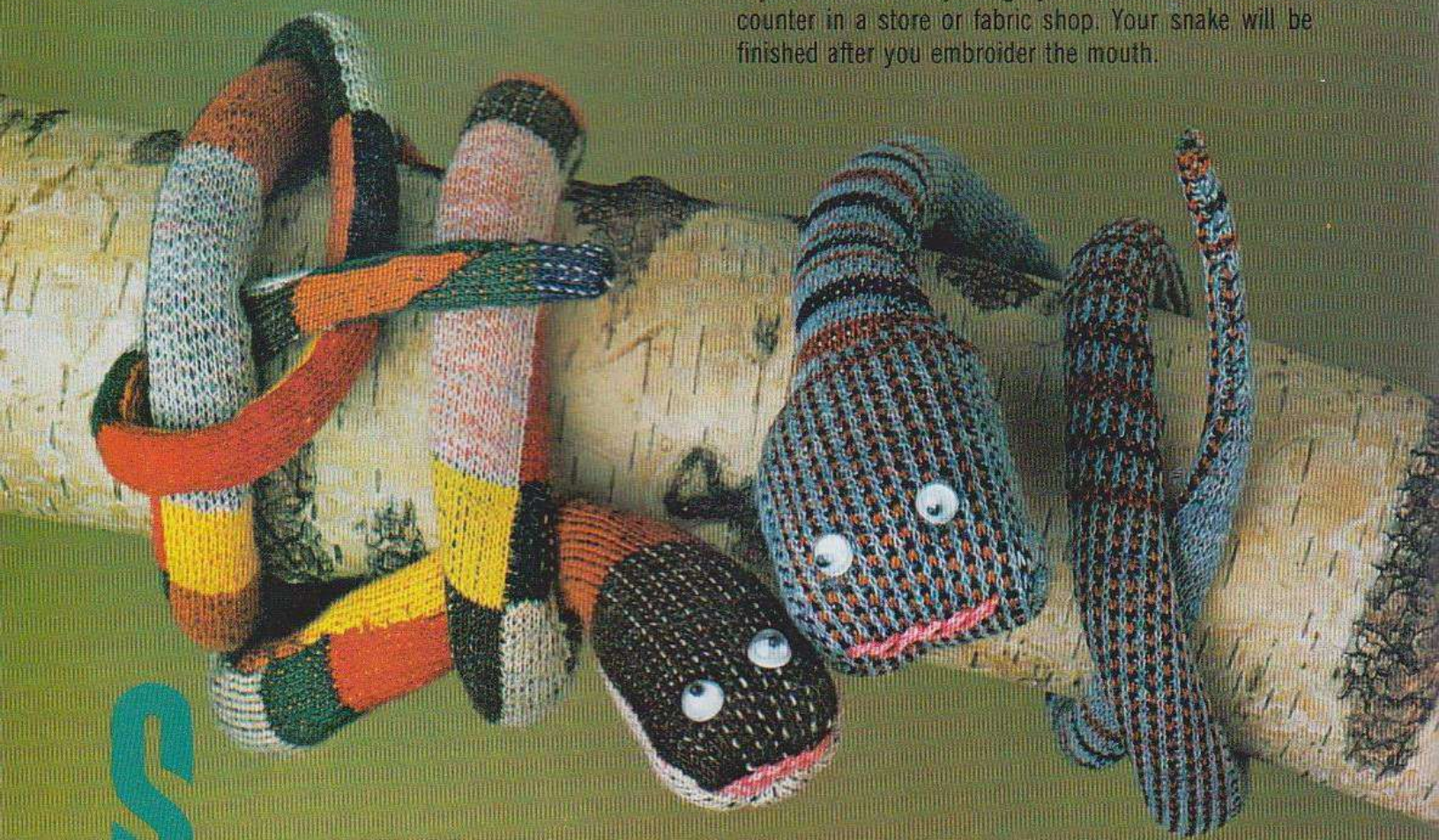
Here's the **BUTTERFLY:** Cut a piece of knit fabric, 2½" x 2". Fold in one end ½" (this will make the head). Then roll up the fabric, rolling the unfolded end to a point to make the tail end. Hand-stitch along the seam to hold the body together. Where the head ends and the thorax begins, wrap some thread around and around and tie it so you can see the parts clearly. Do the same where the thorax ends and the abdomen begins.

For legs, bend three short bag ties so each looks like a staple that sags in the middle. Glue these legs to the mid-section. Let the glue dry thoroughly before going on. Bend and trim legs so the insect can stand. Now glue broomstraws to the head for antennae, or thread yarn through the fabric and spread with clear glue till antennae dry stiff.

Make a paper pattern for one side of the wings, about the size of the palm of your hand. Fold a piece of fabric and place the pattern along the fold. Cut out the wings and open up the fabric. If you need stiffer wings, lightly starch your fabric. Iron, then sew to the body.

If you look closely at the pictures, you will see that by varying the directions for the butterfly you can make these other animals.

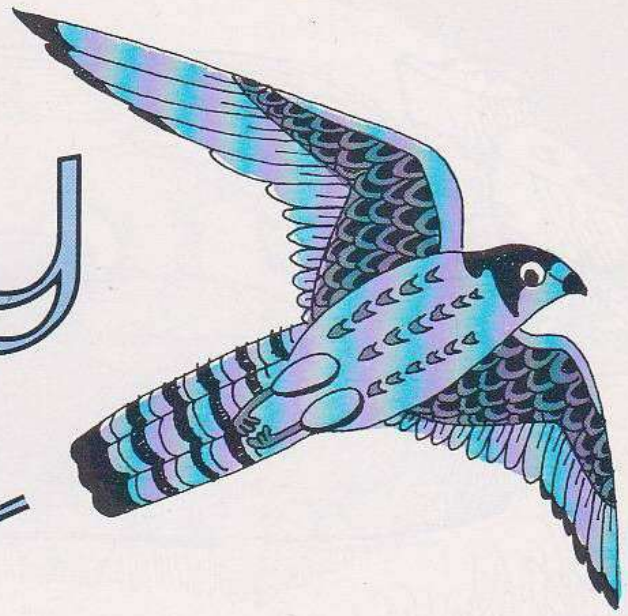
DRAGONFLIES get thinner bodies and wings made from lace or ribbon, like a double bow tie. The **WORM** is a simple roll of knit fabric, tied into segments with yarn. For the **SNAIL** make two fabric rolls each about 3" long—a thick one for the "house," wound around itself and stitched to hold together, and a thinner one for the body. Sew the body to the house. Slash its head to make "horns." Use an overcasting stitch to hold the fabric together. Then coat with glue to hold the shape. A stitch or two at the back of the neck will pull the head up. For a **SNAKE** choose a long strip of knit fabric, cut narrower at one end. Hand-sew it up as you roll, and stuff the head slightly. Sequins or felt make fine eyes if you can't find tiny "bug eyes" buttons at a notions counter in a store or fabric shop. Your snake will be finished after you embroider the mouth.



Sew away using scraps of knit fabric for the bodies. You'll also need needle and thread (of course), clear household cement, all-purpose white glue, bag ties for legs, sequins or felt for eyes, embroidery yarn, broom bristles for antennae and lace or colorful prints for wings.

It's me again —

Happy bee



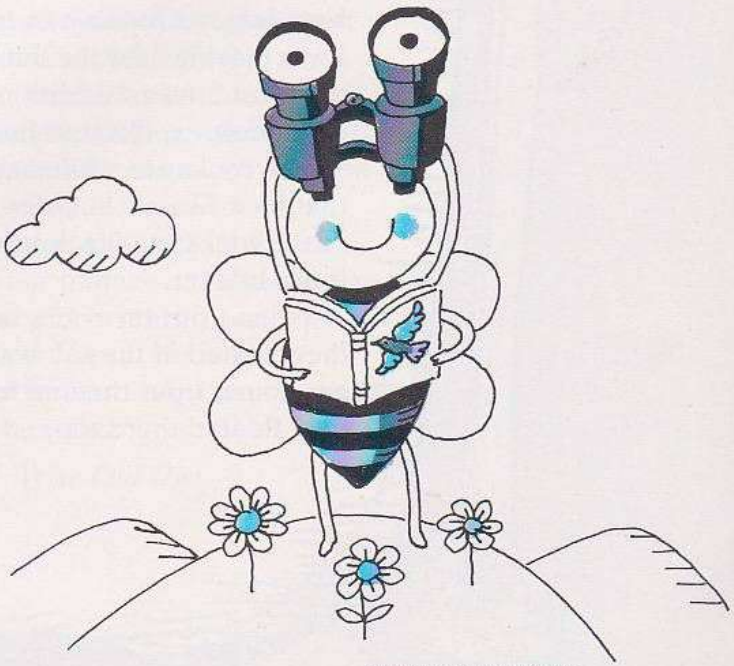
Watch for the Falcons! If you live east of the Rocky Mountains, you may be lucky enough to see a wild peregrine (PER-ah-grin) falcon. What's so special about that? Well, for years now, these beautiful hawks have not been found in the eastern part of the United States. DDT and other pesticides poisoned the food the hawks ate, and when the females laid their eggs the shells were so thin the babies could not develop. So no new peregrines hatched and the adults gradually died off.

Now that DDT and some of the other dangerous pesticides have been banned, *there is a chance for these hawks to make a comeback in the eastern United States.*

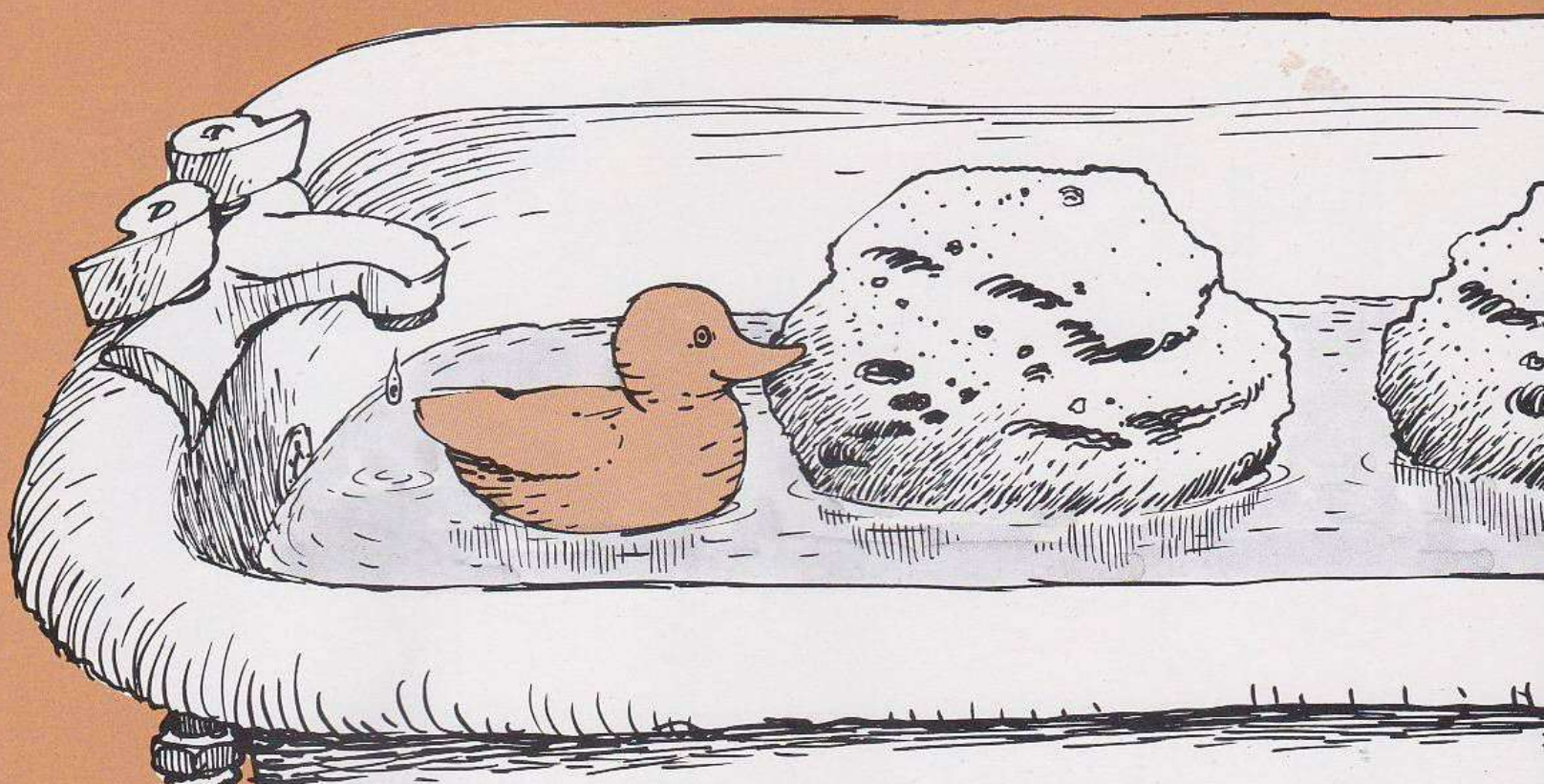
They are getting help from a group of scientists at Cornell University in New York. (See *Ranger Rick*, March 1974.) The scientists have been raising peregrine falcons in their laboratory. This past spring, they took some of the falcons to wild areas of New England, New York State and the Chesapeake Bay area and set them free. The birds have been banded and color-marked so the scientists will be able to keep track of them.

Each spring more birds will be set free in even more areas, such as the wilds of Pennsylvania, along the Atlantic Coast all the way to the Carolinas and near the upper Mississippi and Wisconsin Rivers.

Although DDT lingers for a long time, it *is* slowly disappearing from the environment. So, if the falcons live for two or three years, they should be able to lay eggs with strong shells and raise healthy young. Keep watching!



Drawings by Bill Barron



Dear Wise Old Owl,

Ever since I was little I've stopped to pick up stones and look at them. I have rocks from Pennsylvania, Washington, D.C., Maryland and New Jersey. The rocks are different sizes, shapes and colors. Some are shiny, some sparkle, some are smooth and some are rough.

Every summer I visit Ocean City, New Jersey. One day, in July, 1972, while I was playing near the dunes, I discovered the most unusual addition to my rock collection—rocks that float!

The rocks are white and full of holes that look like air bubbles. On the surface of the rocks is a black substance which looks like tar.

When I put the rocks in the ocean, they floated in the salt water. When I got home, I put them in fresh water, and they floated there too.

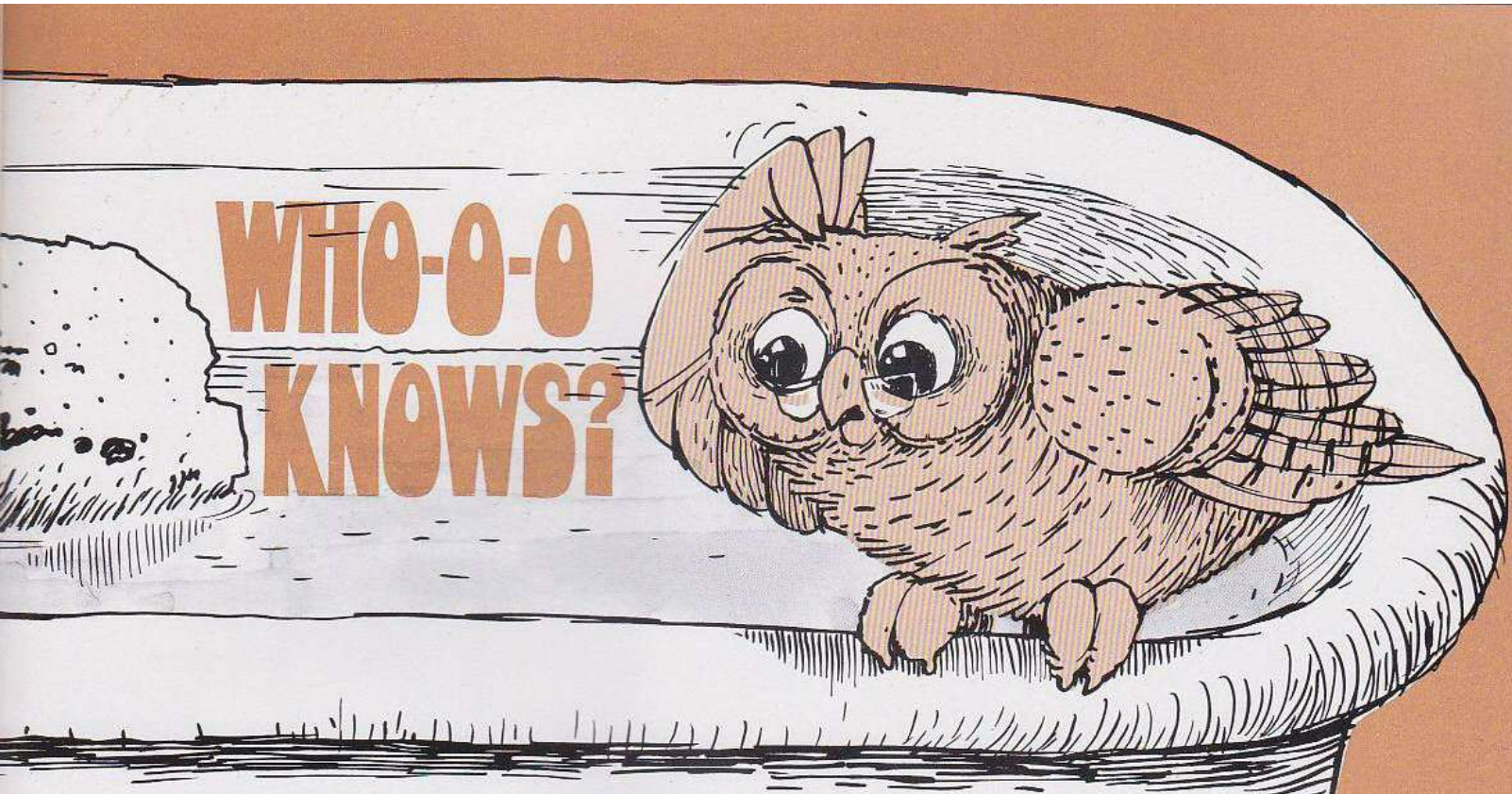
Then I tried another experiment. I scraped some bits off the rocks to see how vinegar would affect them. (I didn't want to take a chance on dipping a whole rock in the acid.) Nothing happened—the bits of rock didn't foam or dissolve in the acid.

I wonder how these rocks were formed, where they came from and how they got to Ocean City, New Jersey. My Uncle Eric says the rocks may be pumice.

I can guess some of the answers to these questions, but I have no proof. I think that the rocks are pumice, formed by a volcano in the Atlantic Ocean. I remember reading and seeing on television about how a volcano was "born" near Iceland several years ago. Perhaps my rocks came here from that volcano. I think the rocks floated through an oil spill where they picked up the tar.

Since I found the rocks near the dunes and not at the water's edge, I guess that

Drawing by Jim Arnosky



they were tossed there by the winter storms of 1971-72, or a very high tide.

Can you answer my questions about my mysterious floating rocks?

David W. Allen, Jr., Age 10,
Valley Forge, Pennsylvania

Dear David,

I showed your mysterious rocks to a rock expert . . . and guess what he said? They *are* pumice! My geologist friend also said *you* might become a very good geologist some day, because you did such clever detective work as you tried to solve the mystery of the floating rocks.

Pumice forms from a kind of lava—the red-hot liquid rock that flows out of erupting volcanos. Bubbles of gas and air are trapped in the liquid rock. When it cools and hardens, these bubbles leave tiny holes. This is why pumice looks like a hard sponge, full of holes.

Not all pumice floats. Some pumice has very few holes, and it sinks in water. Your floating rocks probably came from some very bubbly, gassy lava.

The air and gas bubbles in pumice make it the lightest stone in the world. Some history books tell how sailors were saved after the Krakatoa volcano erupted in Indonesia in 1883. They walked two miles from their ship to the shore on a floating carpet of pumice!

My geologist friend thinks that most likely your pumice didn't have a very exciting past. Since pumice is used by industries (for grinding, polishing and scrubbing), your pieces may have fallen from a cargo ship or floated down a nearby river from a factory. But he also thinks that your pumice *could* have floated on ocean currents from Iceland to New Jersey. He just doesn't know for sure, so your guess could be right!

Wise Old Owl

A Bird Party

TEAKETTLE-TEAKETTLE-TEAKETTLE-TEA,
Carolina brown wren keeps calling to me
till I run for the cookies and set cups for three.

WHEERY-WHIT-WHIT-WHIT, HERE-WE-SIT-SIT-SIT,
the cardinals whistle from the branch where they lit,
and I scatter more seed to feed them a bit.

TOWHEE, TOWHEE, LOOK AT ME, LOOK AT ME,
sings the fancy-dress towhee, COME-SEE, COME-SEE,
his black, white and orange as smart as can be.

CAW-JAY, CAW-JAY, WHAT'S FOR DINNER TODAY?
squawks the blue jay, his feathers in great disarray,
as he tumbles down scaring the others away.

BOB-WHITE, BOB-WHITE, FLY-A-KITE, FLY-A-KITE,
calls the drab-feathered quail, his voice so bright:
Anything left? Just A MITE OF A BITE?

They flutter and squawk and squabble and peck,
but I'm ever so sure they will all be back,
till my pantry is emptied of the very last speck!

—Candida Palmer

THE WHITE-FOOTED MOUSE

The white-footed mouse keeps herself clean and neat.
She washes each night from her head to her feet
Till her brown coat gleams and her feet are white,
And even her tail must look just right.

But here is a fact that is sad but true—
She never cleans house as she ought to do.
When her house gets dirty, the white-footed mouse
Looks for a place for another mouse house.

In all kinds of places this mouse has been found—
She might make a tunnel and live underground.
She might choose a log, or it might even be
She'll fix up an old bird nest, high in a tree!

—Mary Kullberg

SNOWFLAKES

Drifting, floating
Fragile little dancers
Tapping on the pane
To say, "Hello!"
Whirling, swirling
Clumsy circling sailboats
Tossed amidst the storm
Calling, "Goodbye!"
Drifting, whirling,
Floating, swirling
Frosty fun!

—Michelle Silver

GRAY SQUIRREL

Your twitching tail is quite a puzzle.
Could it be an "electric" pencil,
Writing messages on the air?
Quiver-quaking, shiver-shaking,
Are those letters it is making
As you hurry, scurry everywhere?

Does it signal to your friends,
Waving w's, m's, and n's?
Humped—does it send off Q's,
O's, or upset U's?
Does it squiggle "fright";
Scribble— "anger", "joy", "need?"
The "tail-wiggling" words you write
I'd give anything to read.

—Eileen I. Jones

TURTLE TRICK

A turtle slowly creeps along—
He's never in a hurry—
'Cause wearing his own hiding place
He never needs to worry.
When danger lurks, most other creatures
Dash about pell-mell,
But not the steady turtle—
He just ducks inside his shell!

—Richard Muir

STARS

Did you ever go outdoors at night?
Out in the dark without a light?
Did you look overhead and gaze at the sight
Of the dark black sky and the stars so bright?

What did you think when you looked up there?
Wondering thoughts about why and where?
Did your thoughts reach out to the farthest star?
Did the earth seem small when you looked so far?

—Joan J. Lohmann

Photo by Alvin E. Staffan

by Clara N. Howell

How can an animal build a strong, weather-proof house, using only materials it can find and no special tools? It can . . .

Make it with

Certain kinds of crayfish live in burrows that can be up to 6 meters (20 feet) deep. With mud from their holes these **burrowing crayfish** build a "chimney" around the openings of their burrows. As they dig, they carry mud up to the surface. Some neatly stack it up and around the opening; others just dump the wads of mud in a sloppy pile.

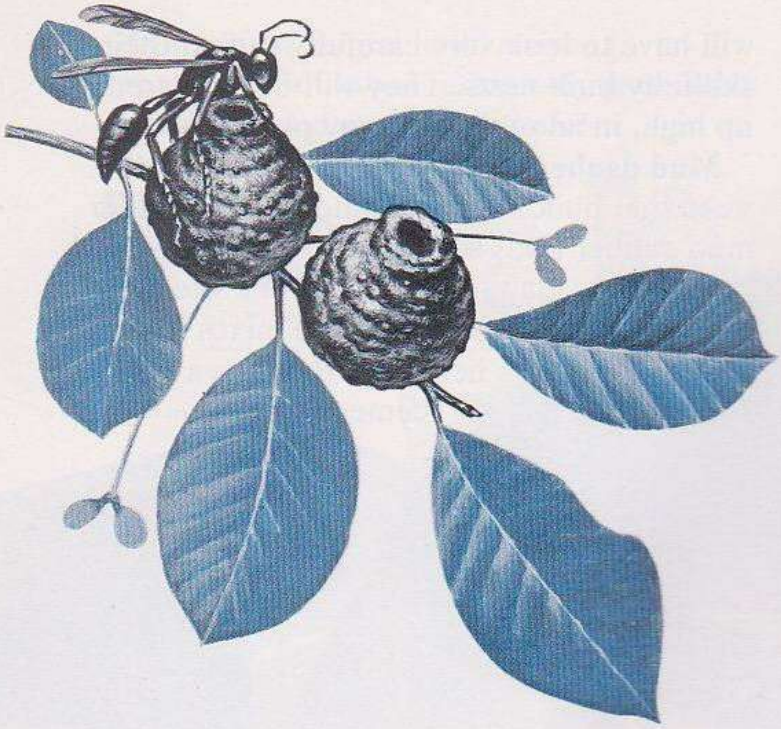
During long periods of dry weather these crayfish seal their chimneys with wads of mud. This keeps the burrows from drying out.

The ancient Egyptians mixed straw and mud to make strong bricks. The **barn swallow,** one of our North American songbirds, mixes straw with mud to build a strong nest.

Mother and father barn swallow fill their beaks with mud from the edges of streams, ponds and puddles. Then they carry it to a bridge, barn, garage or other building. There they use their bills to place it on a beam or ledge. Hundreds of trips are needed to gather enough mud to make one cup-shaped nest. When the nest is done, the swallows line it with feathers and hair. This makes it soft for the eggs.

You can easily spot barn swallows, with their deeply forked tails, flashing in and out of a building's open doors or windows. But you will have to look very carefully to find their skillfully built nests. They will be plastered up high, in an out-of-the-way place.

Mud daubers (DAW-bers) are one kind of wasp that builds nests of mud. When mother mud dauber finds some mud, she uses her jaws to cut out a pea-size pellet of it. Then she mixes it with her saliva to make a sticky cement. *Please turn the page*



She carries the pellet to a place sheltered from the rain inside or on the side of a building. There she sticks it to a wood surface. She makes dozens of trips carrying and shaping one little pellet of mud at a time. After an hour or two a long tube is formed.

While father mud dauber guards the nest, mother mud dauber goes hunting. After filling the tube with paralyzed spiders (food for her young), she lays an egg in it and seals it with mud.

Then she begins work on the next tube of the nest. As she builds more tubes, she attaches them to the side or top of the first ones and then plasters a layer of mud over the whole nest. She may build four or five rooms or she may build a castle-size house with 10 or 20 rooms!

A close cousin of the mud dauber builds a row of very neat tubes, one next to the other, and doesn't plaster over them. Her row of tubes looks like the pipes that stick out from some church organs, so she has the name **pipe organ wasp.**

Another wasp that gets its name from the shape of its nest is the **potter wasp.** She builds what look like little clay pots, attaching them in a row to branches or buildings. After stuffing each one with paralyzed caterpillars, she lays an egg inside and seals the opening. Safely sheltered inside these little rooms, the eggs hatch and the young eat the food. When all the food is gone the young chew their way out of the nests and buzz away to look for a mate.

You can have fun searching for the amazing nests of these miniature mud architects. If you are lucky enough to spot a mud wasp building her nest, you can sit down next to it with a magnifying glass and watch. Don't worry. These wasps are friendlier than most kinds of wasps and will not sting you if you give them plenty of room to work.

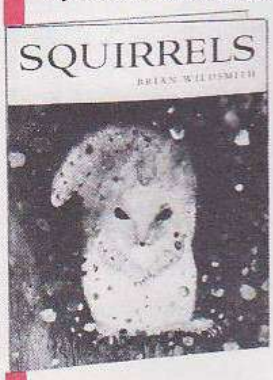
Beavers are famous for building with sticks, but they also are experts at using mud. To build a house, or "lodge," the beavers first pile up some sticks. Then they dive to the bottom of the pond and grab all the mud they can carry in their front paws. They dump the mud onto the pile of sticks and the mud trickles down. It dries like cement and holds the sticks in place. More sticks are added, then more mud, until the pile becomes a cozy shelter from winter weather —and from predators!

Beavers also use mud to build their dams. After building up a stick foundation, they pat mud onto the upstream side. The flowing water washes the mud between the sticks to make the dam leakproof and extra strong.

If you look very hard, you may find some of these busy creatures at work, and maybe even some we haven't mentioned. And next time you see someone pouring concrete or plastering a wall or laying bricks, remember —we humans weren't the first builders to have such good ideas! *The End*

HOLLOW OAK BOOK NOOK

SQUIRRELS
by Brian Wildsmith.



A noted children's book author takes a delightful look at the character and habits of these fascinating little animals. Full-color illustrations show squirrels jumping from tree to tree, frolicking on trunks and boughs, hiding nuts for winter, or nesting high in the treetops. 32 pages, 11¼" x 8¾", all ages.

68626-2GK Non-mem. .. $5.95
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WHEN THE WHALE CAME TO MY TOWN
by Jim Young.

Here's an unforgettable story about a boy who discovers a huge live whale stranded on the beach near his home. It really happened — and the original photographs make this beautiful tale of a boy's encounter with nature come alive. 36 pages, 8½" x 6¾", all ages.

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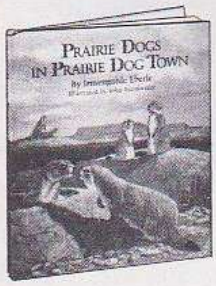
68635GK MEMBERS' PRICE $3.15

PRAIRIE DOGS IN PRAIRIE DOG TOWN
by Irmengarde Eberle.



This lively book tells all about the way of life of prairie dogs; the remarkable little creatures that live in "towns" on the Great Plains. Their language of barks and chatters, their sentry system, their responses to danger, and more is described. Illustrated with true-to-life drawings. 56 pages, 8¼" x 7", ages 7-9.

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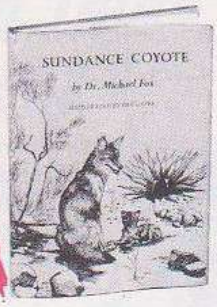
68644GK MEMBERS' PRICE $3.60

SUNDANCE COYOTE
by Dr. Michael Fox.



If you enjoyed the story about coyotes on pages 3-8 in this issue of *Ranger Rick,* you'll love this exciting tale of a Western coyote growing up in the wild. It's a wonderful book of adventure about an often misunderstood animal. Illustrated. 126 pages, 6¼" x 9¼", ages 8-14.

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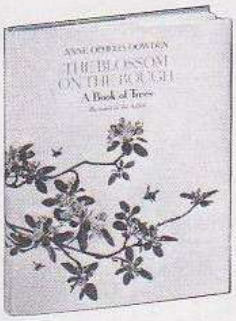
THE BLOSSOM ON THE BOUGH
by Anne Ophelia Dowden.



Fifty delightful illustrations — thirty of them in magnificent full color — bring you the spectacular beauty of budding and flowering trees of the forest. And the author's lucid text simply explains the function of tree flowers, the growth cycle of trees, and the importance of our forests. 80 pages, 8" x 10", ages 10-up.

68742-2GK Non-mem. .. $7.50
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ABOUT OWLS
by May Garelick.

Do you know what owls eat? Or where they sleep? Or whether they can see in the daytime? You will find the answers to these and many other questions about the fascinating world of owls in this beautifully illustrated, lively book. 40 pages, 10¼" x 8½", ages 5-8.

68699-2GK Non-mem. $6.95
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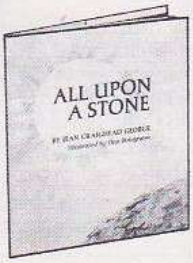
ALL UPON A STONE
by Jean Craighead George.



Who would think that an ordinary stone lying by a stream could be bustling with life! An enchanting look at a child-sized part of our natural world — filled with ferns, mosses, fairy shrimp, and one fuzzy mole cricket traveling across the old worn stone. Full-color illustrations. 48 pages, 6¼" x 7¼", ages 6-9.

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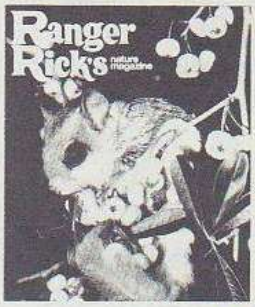
Attention Nature Club Members!

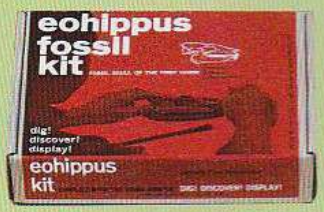


This year—for the first time ever—you can buy single copies of the Christmas issue of *Ranger Rick's Nature Magazine!* This issue will be very special . . . full of the photos, stories, games. and fun you've learned to look forward to.

What a great gift the Christmas issue would make for your faraway friends or neighborhood pals. And for the grown-ups on your shopping list, you can buy the Christmas issue of *National Wildlife!*

We will send the copies you order to you during the first week in December and include special envelopes for you to use in giving out or remailing your gift issues. And everyone who gets one of these special magazines will still enjoy it long after the holidays are over!

44017GK Dec 75 *Ranger Rick's Nature Magazine* $1.00
41403GK Dec/Jan 76 *National Wildlife* magazine $1.50



KITS TO UNCOVER "MONSTERS"! Hidden in real-looking rocks are the "bones" of two fantastic animals from the age of dinosaurs. One is the skull of the tiny Eohippus, the "dawn horse". The other is the jaw of fierce Hoplophoneus, the "saber-tooth cat". By using the tools included in each kit, you can carefully chip away at the rocks and dig out the fossil replicas. Kits are scientifically accurate and complete with all materials needed. Great fun—and when finished the "fossil" is a treasure for rooms and school projects!

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30611GK Ranger Rick Ring **$2.00**
30602GK Ranger Rick Pendant **$3.00**

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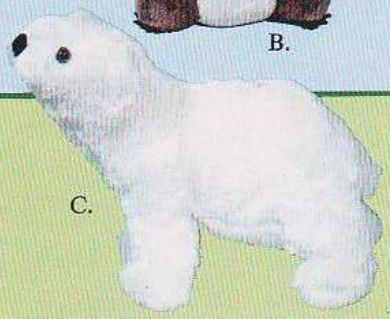
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CUDDLY STUFFED "CRITTERS." The perfect gift for your little friends—and teen friends, too!

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Dear Ranger Rick
1412 16th Street NW,
Washington, DC 20036

On a cold winter day I like to snuggle down in my cozy tree house and read letters from my Rangers telling me what they did on their summer vacations. R.R.

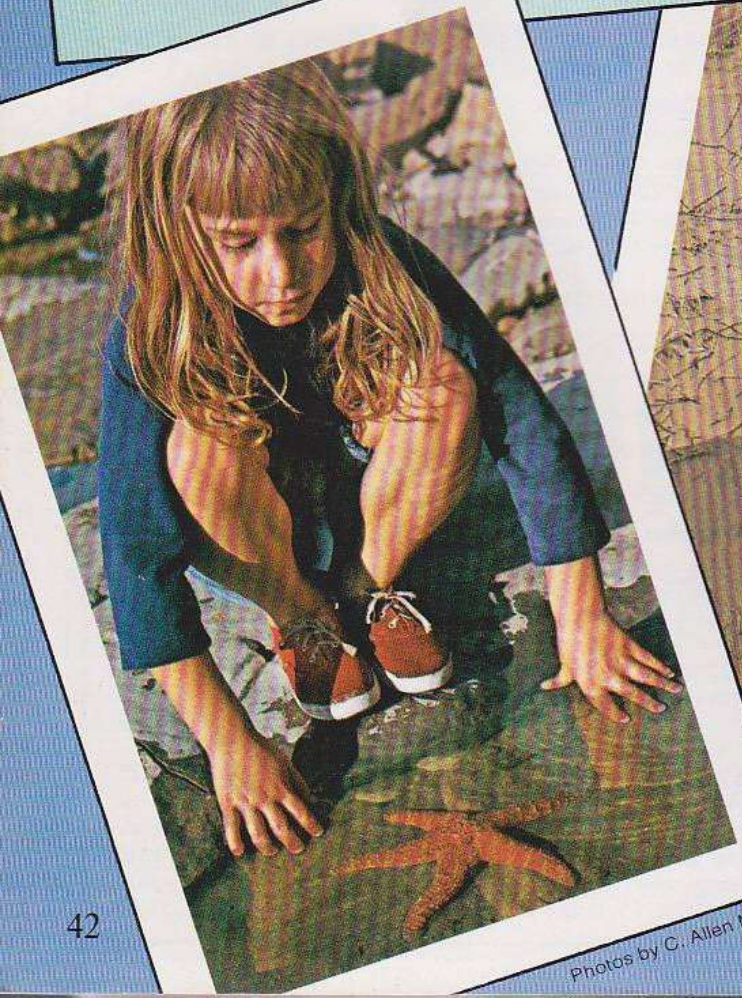
DEAR RANGER RICK,

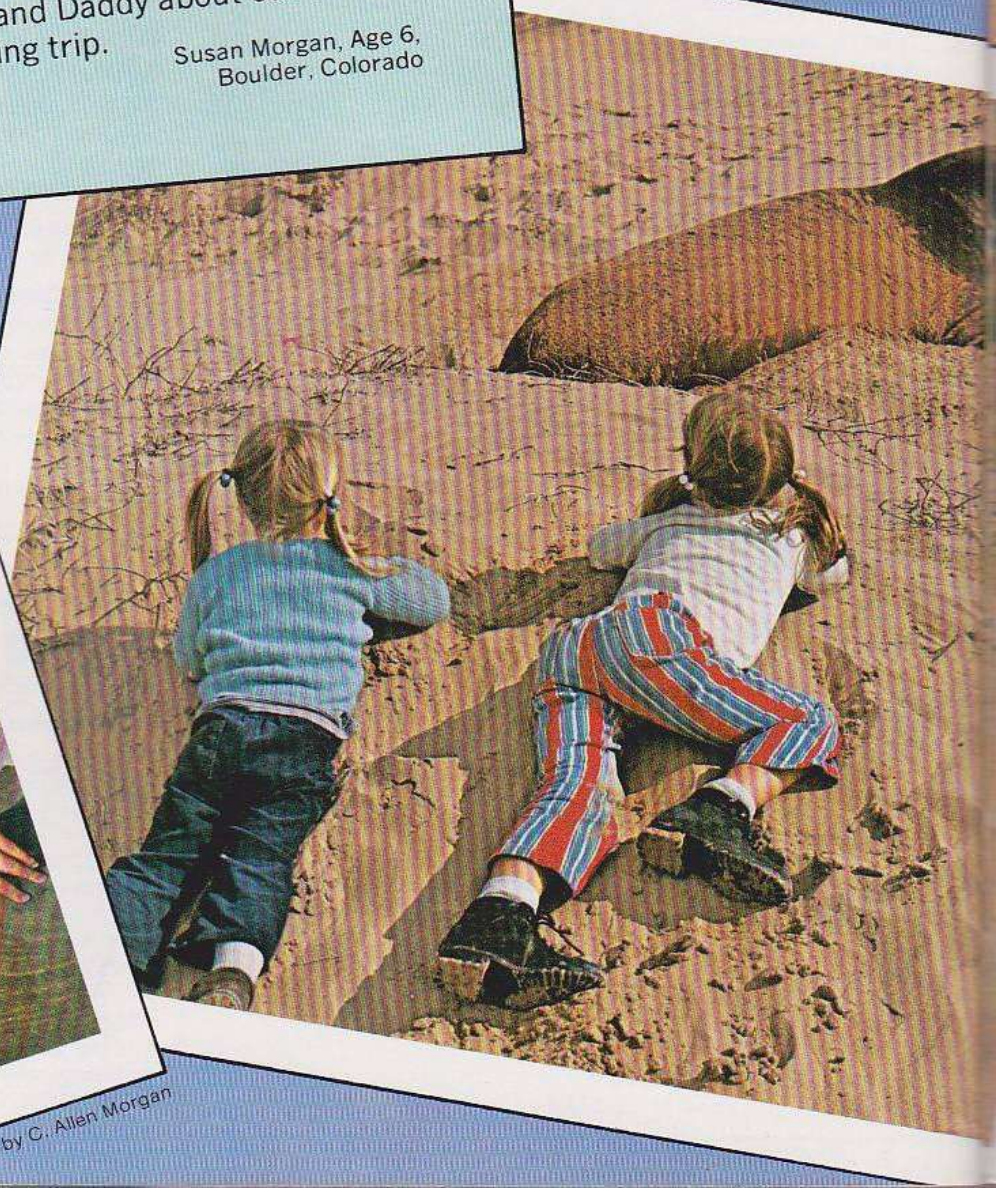
Did you ever meet a log that burped? My sister Debra and I did—and were we ever surprised! The day before it happened, we were walking among some tide pools on a lonely California beach. I had found an orange sea star in one of them. We saw lots of beautiful shells, sea anemones and hermit crabs. On the way back a funny-looking bird followed us along the water's edge. Mother looked for it in the bird guide. It was a marbled godwit.

The next day we went out again. We were way ahead of our parents. Suddenly, we almost fell over this huge brown thing. It opened an eye to look us over. Then . . . it burped! We were scared and ran back for Mother and Daddy. They told us the "log" was an elephant seal that had come ashore for the mating season. Mother said it weighed about 7000 pounds! When Daddy took its picture it raised itself up and flopped toward him. Now it was Daddy's turn to be scared!

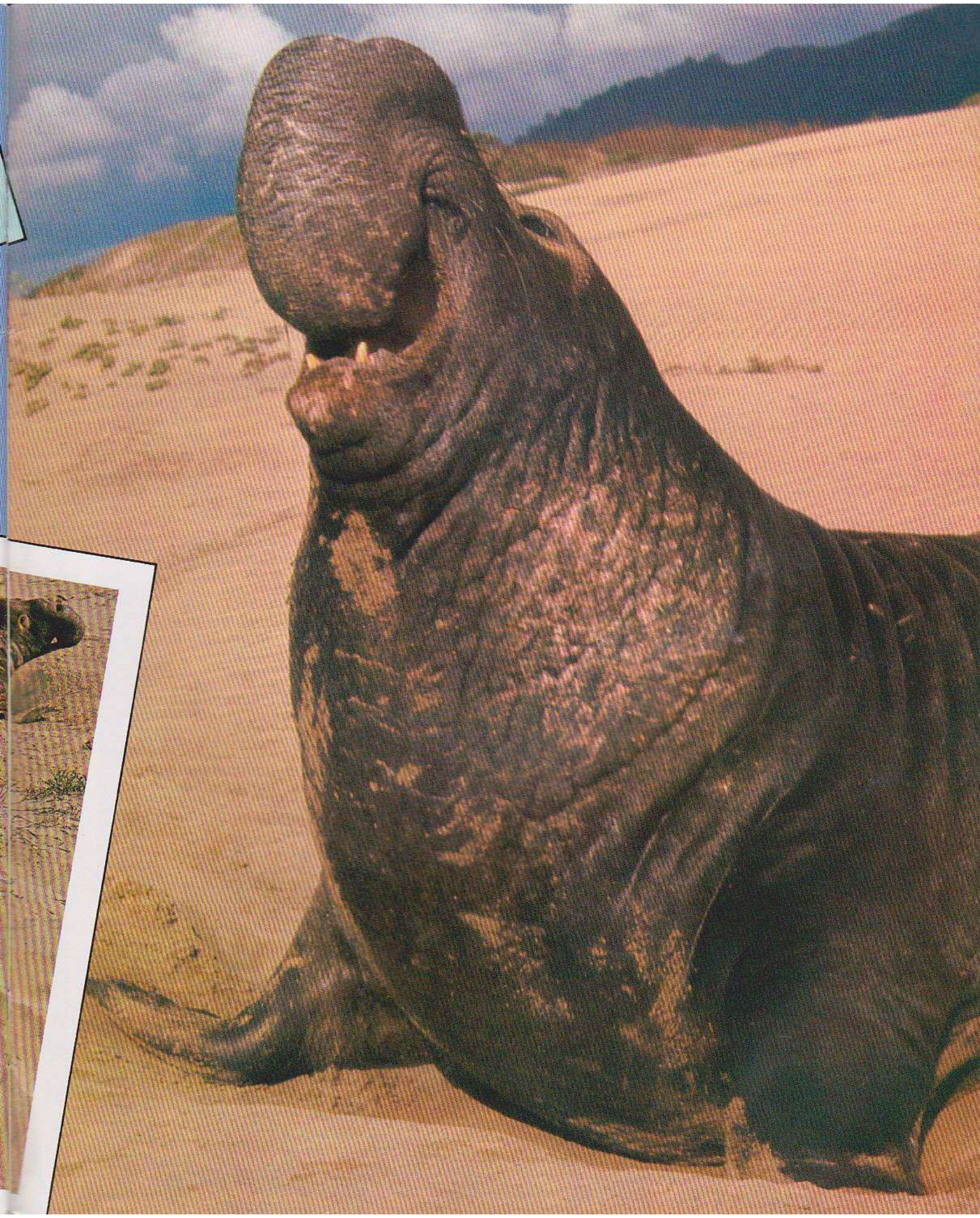
We were very tired when we finally started for home. Debra slept on the way, but I enjoyed talking with Mother and Daddy about our exciting trip.

Susan Morgan, Age 6,
Boulder, Colorado





Photos by C. Allen Morgan



Dear Ranger Rick
1412 16th Street NW,
Washington, DC 20036

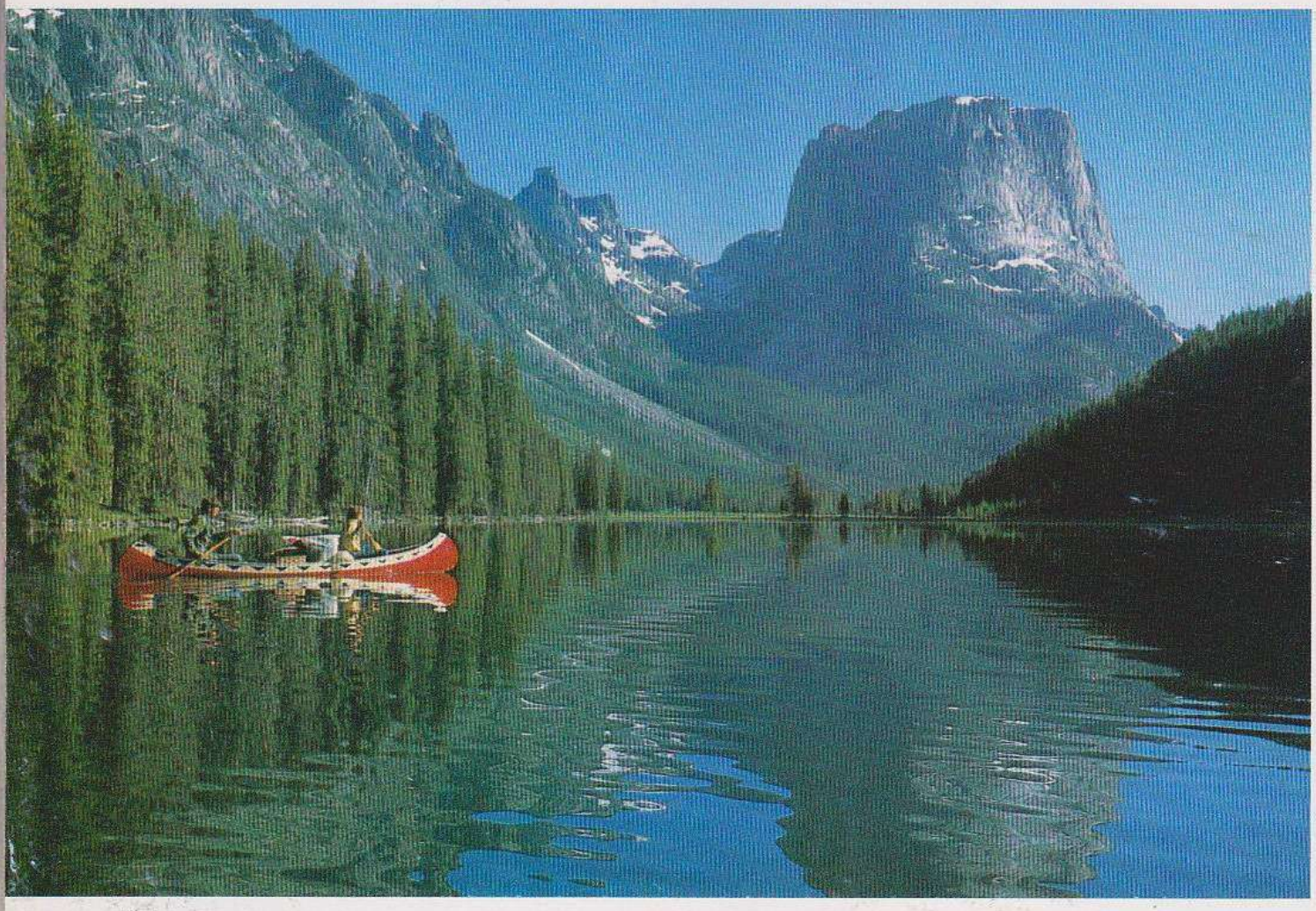
DEAR RANGER RICK,

Last summer our family went on vacation in Wyoming. In the picture we're canoeing across a lake to Square Top Mountain. It's the one you see in the background. The other picture is of me coming down the mountain.

It was an exciting vacation and we saw lots of beautiful scenery. Best of all, though, because we've had plenty of practice we were able to climb to high places which other families probably couldn't reach. I can't wait to visit old Square Top again.

Don Hennen, Age 12,
Geneva, Illinois

When Don Hennen got to old Square Top in Colorado he knew the hours he'd practiced with ropes had really paid off. R.R.



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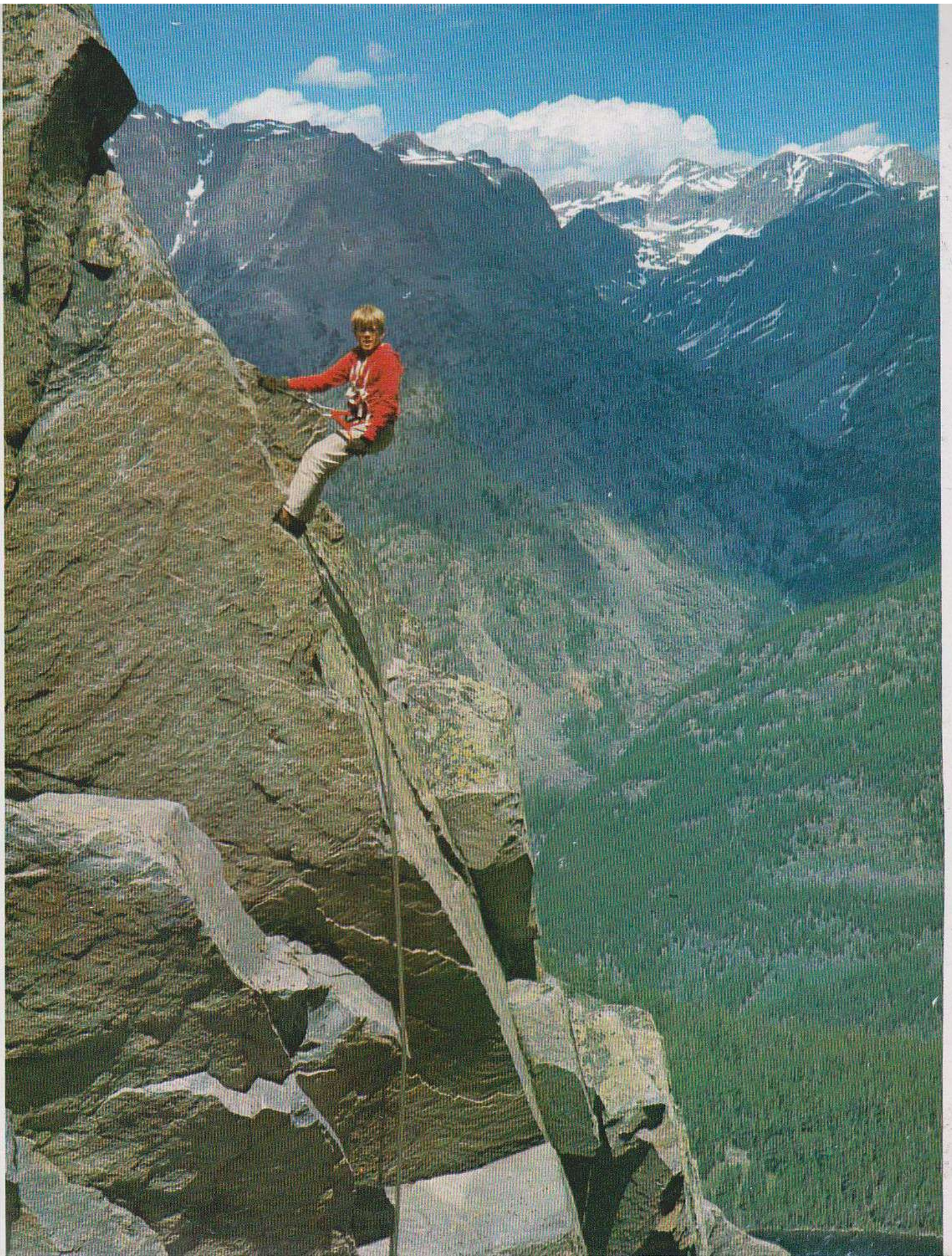


DEAR RANGER RICK,

My father is known as the "island mouse trapper." In the winter he is a biology teacher, but every summer we go to some small islands off the coast of Maine and trap mice. Dad is studying the mice to find out more about their populations.

On Maine's small islands there is usually just one kind of mouse, the meadow mouse. (It is also called the meadow vole.) There are almost always fewer kinds of things living on islands than on the mainland. This is because it is hard for animals (and plants) to reach islands. Our islands have no chipmunks, no red squirrels, no skunks.

My brother Tom and I help Dad trap the meadow mice. We use aluminum box traps which do not hurt the mice. We put a mixture of peanut butter and oatmeal and sliced apple inside the trap for bait.

You can see where voles live in the meadow by looking for the tunnels, or runways, which they cut through the grass. That's where we put our traps. When the mouse enters the trap and steps on the trigger, the door pops shut behind it. Next morning when we open the trap, Dad measures and weighs the mouse and puts a tiny numbered tag on its ear. It looks like a pirate wearing an earring! Then we let the mouse go and mark on our map the place where it was caught.

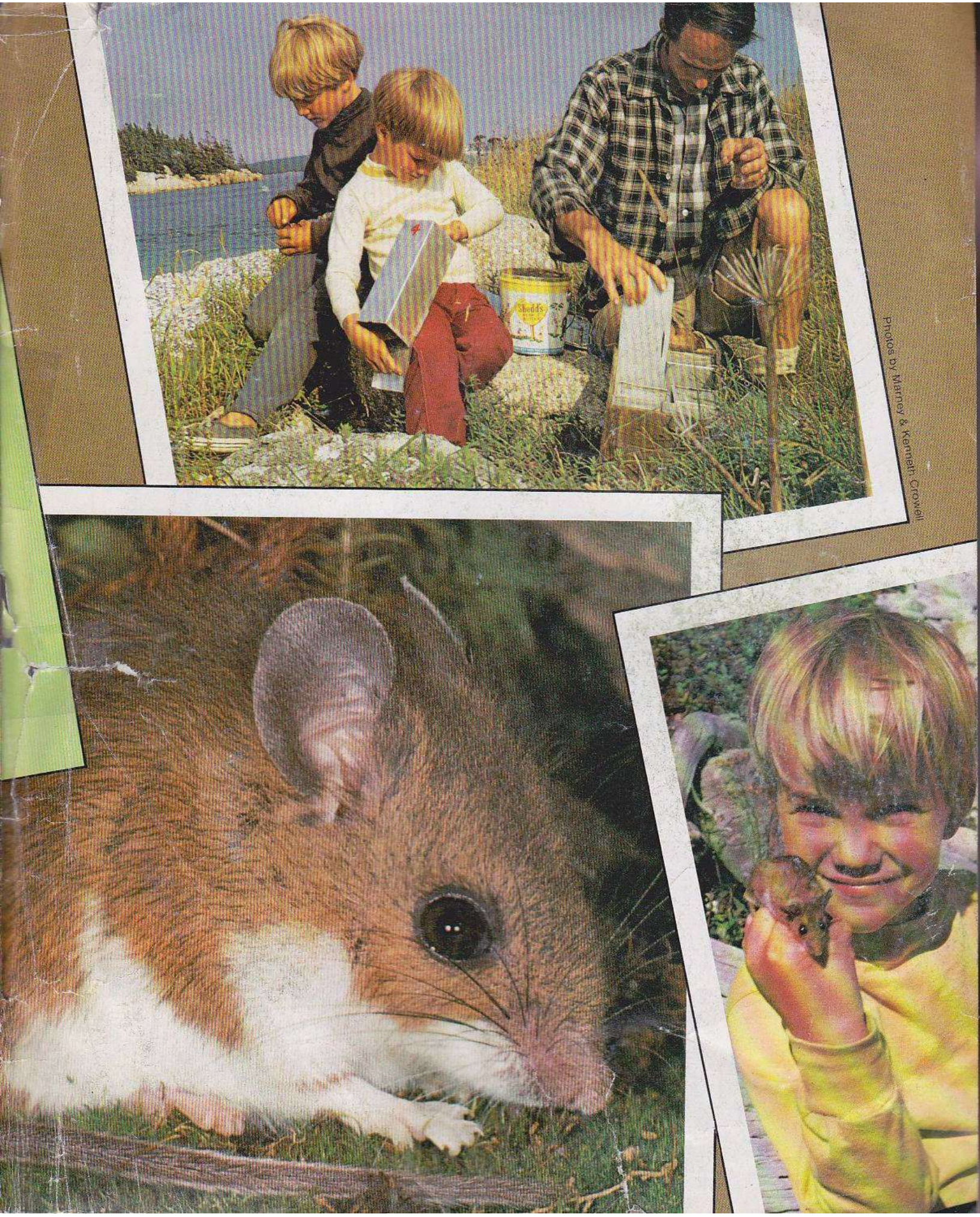
By catching the tagged mice over and over and over again, we've learned that each mouse stays in its own general area, called its home range. It knows just where the food grows there. And it does not have to look around for a hiding place if a hungry hawk appears. It knows just where to run without wasting a second.

We've also learned that they raise many young. Often as many as twelve generations are born in a single summer. The population of mice grows very large, and we hardly ever find an empty trap. But long before the mice eat every blade of grass the number of mice suddenly goes way down. Then the population grows for the next few years before it "crashes." It is a cycle. It was really exciting to learn that our mice had a way of controlling their numbers before they ate up all the food.

I have been helping to trap mice as long as I can remember. Mom says my first word was "mouse." I hope to keep studying animal populations when I grow up. Maybe something I discover will help people solve *their* population problems!

Ranger David Crowell, Age 8,
and his mother,
Canton, New York

Island adventures in Maine were in store for David Crowell. Can you guess why he spent so much time on his knees?
R.R.



Photos by Marney & Kenneth Crowell

Front Cover:
This gray tree frog (it's a little bit bigger than your thumb!) plays peekaboo from under a leaf.

Have you ever seen me in your yard?
I'm a short-horned grasshopper.
Can you guess how I got my name?